SUPREME COURT, U.S.
FILED

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No. 94-941191

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IN THE
Supreme Court of the United States
OFFICE OF THE CLERK

OCTOBER TERM, 1994

WESTERN PALM BEACH COUNTY FARM BUREAU, INC., ROTH FARMS, INC., and K.W.B. FARMS,
Petitioners,

v.

UNITED STATES OF AMERICA,

FLORIDA KEYS CITIZEN COALITION, FLORIDA AUDUBON SOCIETY, FLORIDA WILDLIFE FEDERATION, ENVIRONMENTAL DEFENSE FUND, SIERRA CLUB, NATIONAL WILDLIFE FEDERATION, WILDERNESS SOCIETY, NATIONAL PARKS & CONSERVATION ASSOCIATION, DEFENDERS OF WILDLIFE, TREASURE COAST ENVIRONMENTAL COALITION and MICCOSUKEE TRIBE OF INDIANS OF FLORIDA,

SOUTH FLORIDA WATER MANAGEMENT DISTRICT and SAM POOLE, its Executive Director, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION and VIRGINIA WETHERELL, its Secretary,

CITY OF BELLE GLADE, and CITY OF CLEWISTON, FLORIDA SUGAR CANE LEAGUE, INC. and FLORIDA FRUIT and VEGETABLE ASSOCIATION,
Respondents.

Petition for Writ of Certiorari to the United States Court of Appeals for the Eleventh Circuit

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APPENDIX TO PETITION FOR WRIT OF CERTIORARI

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UNITED STATES COURT OF APPEALS
ELEVENTH CIRCUIT

Nos. 92-4314, 92-4831

UNITED STATES OF AMERICA,
Plaintiff-Counterclaim Defendant-Appellee-Cross-Appellant,

FLORIDA KEYS CITIZEN COALITION, FLORIDA AUDUBON SOCIETY, FLORIDA WILDLIFE FEDERATION, ENVIRONMENTAL DEFENSE FUND, SIERRA CLUB, NATIONAL WILDLIFE FEDERATION, WILDERNESS SOCIETY, NATIONAL PARKS & CONSERVATION ASSOCIATION, DEFENDERS OF WILDLIFE and TREASURE COAST ENVIRONMENTAL COALITION, MICCOSUKEE TRIBE OF INDIANS OF FLORIDA,
Intervenor Plaintiffs-Appellees,

v.

SOUTHERN FLORIDA WATER MANAGEMENT DISTRICT and FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION, TILFORD CREEL,
Defendants-Counterclaim Plaintiffs-Appellees,

CAROL BROWNER,
Defendant-Appellee,

CITY OF BELLE GLADE, CITY OF CLEWISTON,
Intervenor-Defendants-Appellants-Cross-Appellees,

WESTERN PALM BEACH COUNTY FARM BUREAU, INC., FLORIDA SUGAR CANE LEAGUE, INC., ROTH FARMS, INC. and K.W.B. FARMS,
Intervenor-Defendants-Counterclaim, Plaintiffs-Appellants-Cross-Appellees,

FLORIDA FRUIT & VEGETABLE ASSOCIATION,
Intervenor-Defendant,

SOUTH BAY GROWERS, INC.,
Movant,

COLONEL BRUCE A. MALSON, *et al.*,
Counterclaim Defendants.

UNITED STATES OF AMERICA,
Plaintiff-Counterclaim Defendant-Appellant,

FLORIDA KEYS CITIZEN COALITION,
Intervenor-Plaintiff-Appellee,

FLORIDA AUDUBON SOCIETY, *et al.*,
Intervenor-Plaintiffs,

v.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT,
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION,
Defendants-Counterclaim Plaintiffs-Appellees,

TILFORD CREEL, *et al.*,
Defendants,

CITY OF BELLE GLADE, CITY OF CLEWISTON,
Intervenor-Defendants-Appellants,

WEST PALM BEACH COUNTY FARM BUREAU, INC.,
FLORIDA SUGAR CANE LEAGUE, INC., ROTH FARMS, INC.,
and K.W.B. FARMS,
Intervenor-Defendants-Counterclaim,
Plaintiffs-Appellants,

FLORIDA FRUIT & VEGETABLE ASSOCIATION,
Intervenor-Defendant,

SOUTH BAY GROWERS, INC.,
Movant,

COLONEL BRUCE A. MALSON, *et al.*,
Counterclaim Defendants.

Appeals from the United States District Court
for the Southern District of Florida

August 23, 1994

Before BLACK, Circuit Judge, DYER, Senior Circuit Judge, and ALAIMO *, Senior District Judge.

DYER, Senior Circuit Judge:

The Intervenor defendants appeal an interlocutory order granting an injunction entered by the district court in its Order Entering Settlement Agreement as Consent Decree. They assert lack of jurisdiction and a host of other issues that exceed the scope of their limited right to intervene granted by the prior panel in this case. On the cross-appeal of the United States, the government appeals the judgment of the district court that an impact statement pursuant to the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. § 4321 *et seq.* (1970), is required. We affirm in part, reverse in part, and remand for further proceedings.

I. JURISDICTION

Standard of Review

The question of jurisdiction requires this court to satisfy itself not only of its own jurisdiction but also of the jurisdiction of the district court. *Bender v. Williamsport*

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* Honorable Anthony A. Alaimo, Senior U.S. District Judge for the Southern District of Georgia, sitting by designation.

Area Sch. Dist., 475 U.S. 534, 541-42, 106 S.Ct. 1326, 1331-32, 89 L.Ed.2d 501 (1986).

Basis of Appellate Jurisdiction

This court has jurisdiction over this appeal pursuant to 28 U.S.C.A. § 1292(a)(1) (West Supp.1992), which grants circuit courts jurisdiction over interlocutory orders of district courts in granting, continuing, modifying, refusing or dissolving injunctions. Although interlocutory in nature, the Consent Decree is effectively dispositive of all claims below.

Order on Appeal

The Consent Decree approves a Settlement Agreement executed by two State agencies, the South Florida Water Management District ("SFWMD"), the Florida Department of Environmental Regulation ("DER"), and the United States. The Intervenor defendants, City of Belle Glade, City of Clewiston, Western Palm Beach County Farm Bureau, Inc., Florida Sugar Cane League, Inc., Roth Farms, Inc., KWB Farms and the Florida Fruit & Vegetable Association (hereinafter collectively referred to as the "Intervenors") are not parties to the Settlement Agreement.

Intervening Legislative Act

During the pendency of this appeal, the *Everglades Forever Act*, chapter 94-115, to be codified at section 373.4592, Florida Statutes (Supp.1994), was passed by the Florida legislature on April 15, 1994, and became effective when signed by the Governor on May 3, 1994.

Issues Presented

The issue on the Intervenors' appeal is limited to the question of whether the district court or this court has Article III case or controversy jurisdiction of the United States' claim of rights and remedy pursuant to 28 U.S.C. §§ 1331 and 1345. The Intervenors have raised issues on this appeal that exceed the scope of their limited right to

intervene granted by this Court in *United States v. S. Fla. Water Management Dist.*, 922 F.2d 704, 706 (11th Cir.), *cert. denied*, —— U.S. ——, 112 S.Ct. 407, 116 L.Ed. 2d 356 (1991). In both their briefs and at oral argument the Intervenors evidenced no appreciation for the limited extent of their participation in this litigation. The Intervenors' sole right is to raise jurisdiction as an issue with respect to Count 1 of the complaint.[1] This Court previously held that the Intervenors had the right to intervene "solely by reason of the issues raised in Count 1" of the complaint. *Id.* The grant of intervention was premised on the Court's concern that the United States sought in Count 1 to have the district court translate narrative water quality standards into numeric limits. *Id.* at ——-——, 112 S.C. at 708-09. In the initial appeal, it was not even clear that the United States' complaint sought to have the district court set a numeric standard. *See id.* at —— n. 6, 112 S. Ct. at 708 n. 6 ("In fairness to the District Court, we note that the United States claimed in that forum that it was *not* seeking a numeric standard" (emphasis added)). Thus, our prior opinion clearly limits the Intervenors' right to intervene solely to the extent that the district court's resolution of this case might actually set a numeric standard. But the district court did not set such limits in resolving the case. Instead, the United States and the State defendants settled their differences by agreeing to return the setting of numeric limits to the State administrative forum.

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[1] The Intervenors attempt to argue that: (1) they were denied due process; (2) the Attorney General lacked independent authority to bring the claims without the consent of the responsible contracting agencies; (3) the court's exercise of jurisdiction violated fundamental principles of abstention, comity and federalism; (4) the Settlement Agreement violates the Florida Sunshine Law; (5) the Settlement Agreement exceeds the scope of the proceedings; (6) the Agreement violates the Flood Control Act; (7) the Agreement violates the Farmland Protection Policy Act. The Intervenors lack standing to raise these issues because they are outside of the limited scope of the intervention that was permitted by this Court.

By arguing the many issues in which the Intervenors lack standing, they have required this Court to expend much time and effort which was entirely unnecessary.

The Everglades and the Refuge

The Everglades is a limestone depression filled with grass and thick organic deposits from a broad southbound sheet of water. There are some 14 miles of canals and levees, dikes, pumps and water storage areas. This water system artificially transports water throughout the Kissimmee, Okeechobee and Everglade basins. Vast quantities of waters are delivered to the Loxahatchee National Wildlife Refuge and the Everglades National Park. One of the largest consumers of water south of Lake Okeechobee is the agri-industry located within a 700,000 acre basin called the Everglades Agricultural Area ("EAA"). The EAA lies south of Lake Okeechobee between the lake and the water conservation area. The Park provides sancutary to rare, threatened and endangered species of wildlife. The Park has diverse and complex eco-systems that require non-polluted, low nutrient waters for their ecological integrity.

The Refugee is a remnant of the original Northern Everglades, and has the same diversity of marsh habitat. It is also a sanctuary to unique wildlife species. Low nutrient waters are also required in the Refuge to preserve its native habitat.

Large quantities of polluted waters have resulted in the destruction of lower forms of aquatic life essential to the preservation of the sensitive ecosystems in the Park and Refuge.

Procedural History

Count 1 of the government's complaint alleges that both DER and SFWMD have failed to exercise their power and responsibilities and failed to enforce State water laws in (a) regulating polluted water from the EAA that contain harmful nutrients, (b) failing to pre-

vent violations of State water quality standards for water entering the Park and Refuge, and (c) having deliberately and consistently diverted polluted waters into the Refuge.

Count 2 alleges that SFWMD has violated State statutory and common law by operating unpermitted structures.

Count 3 alleges that SFWMD breached a contract with the United States Corps of Engineers which sets forth water quality standards for deliveries to the Park to insure that surface waters are of sufficient purity to prevent ecological damage to the Park.

Count 4 alleges that SFWMD breached a 50-year contract with the United States under which it was agreed that the Service should use the property there delineated as a wildlife management area to promote the conservation of wildlife, fish and game.

The relief prayed for by the government is, *inter alia*, that DER and SFWMD be mandated to carry out their statutory duties to enforce all applicable water quality standards in waters diverted to the Park and Refuge, and to act within their authority to insure that the waters delivered to the Park and Refuge conform to the requirements of the 1984 and 1951 contracts.

The defendants DER and SFWMD denied that the district court has federal question jurisdiction under 28 U.S.C. § 1331 or subject matter jurisdiction under section 1345; that there is no case or controversy under Article III of the Constitution; nor is there any federal statute authorizing such action, or a Florida statute under which the State agencies have clearly consented to the suit. The defendants also asserted that the State's administrative remedies provide an adequate remedy at law.

After years of lengthy, complex, and acrimonious litigation, the United States, DER and SFWMD resolved all of their respective claims against each other by entering into a Settlement Agreement which the district court approved and entered as a Consent Decree. In a lengthy

Memorandum Opinion and Order, *United States v. S. Fla. Water Management Dist.*, 847 F.Supp. 1567 (S.D. Fla.1992), the district court exhaustively reviewed and then approved the terms of the Agreement as fair, adequate and reasonable. The Agreement is not self-executing in that its provisions are to be carried out in accordance with Florida law and procedures.

DISCUSSION

The decisive issue on this appeal is whether the district court has jurisdiction to entertain this action.

The Intervenors attack as fundamental error in the entry of the Consent Decree the court's lack of jurisdiction. The district court held it had jurisdiction of this action primarily because 28 U.S.C. § 1345 unequivocally grants jurisdiction without regard to the subject matter of the litigation. The Intervenors challenge the court's jurisdiction, arguing that there is no case or controversy.

28 U.S.C. § 1345—Subject Matter Jurisdiction

The district court held that:

> [t]he Court's jurisdiction over this case is predicated primarily, though not exclusively, upon 28 U.S.C. § 1345: "Except as otherwise provided by Act of Congress, the district courts shall have original jurisdiction of all civil actions, suits or proceedings commenced by the United States, or by any agency or officer thereof expressly authorized to sue by Act of Congress."

The district court went on to say:

> Under § 1345, the mere presence of the United States as a plaintiff in this case is enough to vest this Court with jurisdiction absent Congressional authority clearly indicating otherwise.

* * * *

> It is also evident from the statutory language that . . . a clear Act of Congress is required to *divest* district courts of their jurisdiction over actions commenced by the United States. The phrase 'Except as otherwise provided by Act of Congress,' at the beginning of the section was inserted to make clear that jurisdiction exists generally in district courts in the absence of special provisions conferring it elsewhere.

S. Fla. Water Management Dist., 847 F.Supp. 1567 (S.D. Fla.) (emphasis in the original).

The Intervenors concede, as they must, that there is no subject matter bar as such to United States' suits against the States. *See United States v. Marchetti*, 466 F.2d 1309, 1313 (4th Cir.), *cert. denied*, 409 U.S. 1063, 93 S.Ct. 553, 34 L.Ed.2d 516 (1972); *United States v. California*, 328 F.2d 729, 732 (9th Cir.), *cert. denied*, 379 U.S. 817, 85 S.Ct. 34, 13 L.Ed.2d 29 (1964); *United States v. Puerto Rico*, 551 F.Supp. 864, 865 (D.P.R.1982), *aff'd.*, 721 F.2d 832 (1st Cir.1983); 14 Charles A. Wright et al., *Federal Practice and Procedure* § 3651 (1985). The Intervenors submit, however, that Section 1345 "simply assigns to the district court, it does nothing to create or define the jurisdiction created by Article III." We disagree.

When there is justiciability, the United States may, under section 1345, sue in the federal court irrespective of subject matter. In the seminal case of *Flast v. Cohen*, 392 U.S. 83, 94-95, 88 S.Ct. 1942, 1949-50, 20 L.Ed.2d 947 (1968), the Supreme Court defined "case or controversy" as used in Article III of the Constitution:

> Embodied in the words "cases" and "controversies" are two complementary but somewhat different limitations. In part those words limit the business of the federal courts to questions presented in an adversary context and in a form historically viewed as capable of resolution throught the judicial process. And in

> part, those words define the role assigned to the judiciary in a tripartite allocation of power to assure that the federal courts will not intrude into areas committed to other branches of government. Justiciability is the term of art employed to give expression to the dual limitation placed upon federal courts by the case-and-controversy doctrine.

We explore the application of this doctrine to this case.

Case or Controversy

Preliminarily, to define the issues in Count 1, it is important to consider what the district court did and what it did not do. This is because the thrust of the Intervenors' argument is that this is simply "litigation to coerce the making of State regulations that a federal judge deems suitable under State law for United States' property interests." We do not accept this as a correct statement of the issue involved. Rather, as the district court explained: "Nothing in this Agreement is intended to abrogate the District's and DER's duties to act in accordance with Florida law. Indeed, the Agreement requires the District and DER to fulfill their obligations under existing state law." 847 F.Supp. at 1572. The district court concluded that "[t]he Agreement does no more than set in motion a process . . . The Agreement effects a transfer of these proceedings to a state administrative forum." *Id.* at 1582.

The government's amended complaint did not seek, nor does the Consent Decree provide, that the government's role is to force the State to compose or enforce stricter State law regulations. On the contrary, the Agreement commits the State to perform certain remedial measures which are fully authorized by State law. The essence of the Agreement is to achieve compliance with State law.

This background dictates that the narrow issue before us is whether the district court has jurisdiction of this suit brought by the United States, as a proprietary owner of

the Park and Refuge, to protect its property from the nutrient pollution emanating from the EAA, by requiring the State agencies to carry out their State statutory duties to enforce the applicable water quality standards in waters diverted to the Park and Refuge.

Focusing on Article III, Section 2, of the Constitution which extends the federal judicial power to "controversies to which the United States shall be a party," the Intervenors argue that the settling parties are free to enter into any agreement that they may choose, but the district court may not enter such an agreement as a consent decree unless it is founded upon a federal statute or constitutional right.

To support this position, the Intervenors rely on restrictions on federal suits against states based on the powers granted to Congress and the residual state powers under the Tenth Amendment. They point to cases which strike down as unconstitutional an intrusion by Congress into the lawmaking functions of the states, and argue by analogy that the same principles apply to Article III jurisdiction. *See New York v. United States,* —— U.S. ——, 112 S.Ct. 2408, 120 L.Ed.2d 120 (1992) (under the Tenth Amendment Congress may not compel the states to enact or administer a federal regulatory program); *Gregory v. Ashcroft,* 501 U.S. 452, 460-66, 111 S.Ct. 2395, 2401-03, 115 L.Ed.2d 410 (1991) (requiring "plain statement" in acts of Congress to override state decisions); *Will v. Mich. Dept. of State Police,* 491 U.S. 58, 65, 109 S.Ct. 2304, 2309, 105 L.Ed.2d 45 (1989) (requirement of a clear statement in legislation with intent to affect the federal balance); *Garcia v. San Antonio Metro. Transit Auth.,* 469 U.S. 528, 105 S.Ct. 1005, 83 L.Ed.2d 1016 (1985) (category of "traditional governmental function" is untenable standard for judicial decisions regarding state immunity under the Commerce Clause).

Intervenors submit that *Pennhurst State Sch. & Hosp. v. Halderman,* 465 U.S. 89, 104 S.Ct. 900, 79 L.Ed.2d 67

(1984) condemns a federal court in instructing state officials on how to conform their conduct to state law. We observe that the court was there called upon to determine whether the claim against the petitioners in carrying out their official duties *violated* state law and, therefore, is a claim against the state barred by the Eleventh Amendment. There is no suggestion in the case *sub judice* that the Consent Decree *violates* state law. On the contrary, its object was to require adherence to state law.

Next, the Intervenors draw our attention to *Kasper v. Bd. of Elections Comm'rs of City of Chicago,* 814 F.2d 332 (7th Cir.1987), where the court quoted *Pennhurst,* 465 U.S. at 106, 104 S.Ct. at 911: "[I]t is difficult to think of a greater intrusion on state sovereignty than when a federal court instructs state officials on how to conform their conduct to state law." 814 F.2d at 342. Intervenors extropolate this language as being applicable to this case. We find it to be clearly out of context. The court made it crystal clear in *Kasper* that "[t]he Republican plaintiffs' complaint contends that the Board has neglected its duties under state law. Yet, the decree does not stop with perfecting the Board's adherence to state law and exercising such discretion as the Board possesses. It commits the Board to *violate* state law." *Id.* at 341 (emphasis in the original). There is not a whisper of a suggestion that in this case the government is attempting to require the State to violate the law.

The Intervenors concede that the Tenth Amendment is not a limitation on Article III jurisdiction in this case, nor is it argued that the Eleventh Amendment has any applicability. We do not perceive how these cited decisions are helpful in determining whether there is a controversy question in this case.

Next, the Intervenors rely on cases in which citizens sue the federal or state sovereigns and the integrity of separated powers of reserved sovereignty is continually re-

affirmed. They argue that these principles are not different when the United States sues a state. Such cases are *Allen v. Wright,* 468 U.S. 737, 104 S.Ct. 3315, 82 L.Ed.2d 556 (1984); *City of Los Angeles v. Lyons,* 461 U.S. 95, 103 S.Ct. 1660, 75 L.Ed.2d 675 (1983); *O'Shea v. Littleton,* 414 U.S. 488, 94 S.Ct. 669, 38 L.Ed.2d 674 (1974). But these cases are bottomed on the plaintiff's lack of injury in not satisfying the "case or controversy" requirement. *Allen* held that in a citizen's suit the plaintiff must allege personal injury fairly traceable to the defendant's allegedly wrongful conduct. *Lyons* declared that to satisfy the "case or controversy" requirement of Article III, "the plaintiff must show that he 'has sustained, or is in immediate danger of sustaining, some direct injury' as a result of the challenged official conduct." 461 U.S. a 101-02, 103 S.Ct. at 1665. *O'Shea* was a citizens' civil rights suit "where none of the named plaintiffs . . . [has] suffered any injury." 414 U.S. at 495, 94 S.Ct. at 676.

Here it is alleged with specificity the direct and continuing injury and damage to the ecosystems of the Park and Refuge because of nutrient water flowing from the EAA which could have been, and should be, prevented by State agencies acting to enforce their own laws and regulations.

Intervenors next argue that *Firefighters Local Union No. 1784 v. Stotts,* 467 U.S. 561, 104 S.Ct. 2576, 81 L.Ed.2d 483 (1984) and *System Fed'n No. 91 v. Wright,* 364 U.S. 642, 81 S.Ct. 368, 5 L.Ed.2d 349 (1961) demonstrate the inappropriateness of the Consent Decree. We find these cases inapposite. *Firefighters* was a Title VII case concerned with an injunction entered outside of the scope of the consent decree. *System Fed'n* was concerned with a change of statutory law that was in conflict with the terms of the consent decree. The court there held that it must be free to modify the terms of the consent decree where a change in the law brings those terms in

conflict with statutory law. 364 U.S. at 651-53, 81 S.Ct. at 373-74.

Finally, the Intervenors insist that there is no case or controversy in the district court because the action is not based on a constitutional right or a federal statute. We have found no authority to support this broad statement. On the contrary, in *United States v. California,* 328 F.2d 729 (9th Cir.1964), the court stated that "the Constitution grants . . . jurisdiction . . . over civil suits brought by the United States against a State without specific consent regardless of the nature of the controversy, provided the issue is justiciable. . . ." *Id.* at 731. The court pointed out in *United States v. Hill,* 694 F.2d 258 (D.C.Cir. 1982) that "[a]lthough other special jurisdictional provisions may also give the district court jurisdiction over some cases brought by the United States, the government *need not have any specific statutory authorization for a particular action* inasmuch as general jurisdiction is conferred by Section 1345." *Id.* at 268 (emphasis in original). Again, in *United States v. Marchetti,* 466 F.2d 1309 (4th Cir.), *cert. denied,* 409 U.S. 1063, 93 S.Ct. 553, 34 L.Ed.2d 516 (1972), the court held that jurisdiction arises from the United States as a party. "The government can sue even if there is no specific authorization. In such cases, however, it must have some interest to be vindicated sufficient to give it standing." *Id.* at 1313.

In 14 *Charles A. Wright et al., Federal Practice and Procedure* § 3651 (1985), the authors state:

> [T]he government need not have specific statutory authorization for a particular action inasmuch as general jurisdiction is conferred by Section 1345. . . . [W]hen the United States is not suing to vindicate a specific federal statutory right but simply bringing suit under the general jurisdictional provision in Section 1345, it has been held that it must have an

> interest in the dispute that is sufficient to give it standing. . . . The government's interest need not be pecuniary or proprietary; it simply may decide to litigate to assure the proper implementation of its policies and programs.

We conclude that this action does present a case or controversy. The justiciability of the controversy rests on the government's assertion that the use of its public lands is being destroyed by nutrient-laden water because the State agencies are not fulfilling their legislatively enacted duties. Nor does it intrude, in the circumstances of this case, into areas reserved by the sovereignty of the State.

II. NATIONAL ENVIRONMENTAL POLICY ACT

The United States appeals the judgment of the district court that the federal government's participation in negotiating and implementing the Settlement Agreement, which requires State remedial action to be taken, is major federal action within the meaning of section 102 of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321, and, therefore, preparation of an Environmental Impact Statement ("EIS") is required, but not simultaneously with or as a condition to the implementation of the Settlement Agreement. We reverse.[2]

The underlying facts are set forth in the Intervenors' appeal.

Standard of Review

The district court's findings of fact are reviewable for clear error. *See Newell v. Prudential Ins. Co. of Am.*, 904 F.2d 644, 649 (11th Cir.1990). Whether control is the sort that NEPA regards as significant for EIS purposes is a question of law subject to *de novo* review. *Sierra Club v. Hodel*, 848 F.2d 1068, 1089 (10th Cir.1988).

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[2] This appeal by the United States, No. 92-4831, is consolidated with Intervenors' appeal, No. 92-4314.

Major Federal Action

In *Save Barton Creek Ass'n v. Fed. Highway Admin.*, 950 F.2d 1129 (5th Cir.1992), the court held that:

> NEPA requires that federal agencies consider the environmental consequences of "major federal action significantly affecting the quality of the human environment". 42 U.S.C. § 4332(a)(C). The requirements of NEPA, which include, among other things, the submission of an EIS, apply only when the federal government's involvement in a project is sufficient to constitute "major federal action".

950 F.2d at 1133 (footnote omitted).

We must therefore determine whether, at this juncture, sufficient federal involvement exists in what is proposed in the Settlement Agreement to constitute major federal action affecting the environment under NEPA.

The focus in this case is on the federal agencies' control and responsibility over material aspects of the specific project. *See, e.g., Maryland Conservation Council, Inc. v. Gilchrist*, 808 F.2d 1039, 1042-43 (4th Cir.1986) (exercise of federal approval power over state project). Major federal action can exist when the primary actors are not federal agencies. *Macht v. Skinner*, 916 F.2d 13 (D.C.Cir.1990); *Save Barton Creek Ass'n*, 950 F.2d at 1133. There are no clear standards for defining the point at which federal participation transforms a state project into federal action. "Federal courts have not agreed on the amount of federal involvement necessary to trigger the applicability of NEPA." *Village of Los Ranchos de Albuquerque v. Barnhart*, 906 F.2d 1477, 1480 (10th Cir.1990), *cert. denied*, 498 U.S. 1109, 111 S.Ct. 1017, 112 L.Ed.2d 1099 (1991). The touchstone of major federal activity constitutes a federal agency's authority to influence nonfederal activity. "[T]he federal agency must possess actual power to control the nonfederal activity." *Sierra Club*, 848 F.2d at 1089.

The fact that proposals have been made as the result of a state-federal compromise agreement to compel a non-federal party to undertake its legal responsibility does not convert the proposed state remedial measures into federal responsibilities for NEPA purposes. The power to influence the outcome of a lawsuit by advocacy and negotiation is not synonymous with a federal agency's authority to exercise control over a non-federal project which requires federal approval as a legal precondition to implementation. We must bear in mind that the district court properly found that the Agreement requires the agencies to fulfill their obligations under State law by setting in motion a process to effect a transfer of the proceedings to a State administrative forum. The rendering of advice and technical consultation to aid in the defense of the Settlement Agreement in legal proceedings does not significantly affect the environment and does not federalize the State activities. The possibility that federal funding will be provided in the future is not sufficient to federalize a state project, even when such funding is likely. *Atlanta Coalition on the Transp. Crisis, Inc. v. Atlanta Regional Comm'n*, 599 F.2d 1333, 1347 (5th Cir.1979).

The district court concluded that the State's restoration program is federalized by three factors: (1) the influence exercised by the United States through the settlement negotiations and remedial measures proposed in the Settlement Agreement; (2) the United States' participation in research and monitoring and the administrative actions contemplated by the Agreement; and (3) the United States' continuing power to withhold consent and invoke dispute resolution mechanisms concerning the State agencies' restoration program decisions.

As we have previously discussed at some length, the first two of the three factors relied on by the district court in finding that the State's restoration program is federalized under the Settlement Agreement are insufficient for purposes of NEPA. In sum, the federal government does not possess the requisite control to federalize a project

when the state agencies retain their state law authority to make the decisions concerning the project. *See Village of Los Ranchos,* 906 F.2d at 1480-81.

NEPA applies only when there is federal decision-making, not merely federal involvement in nonfederal decision-making. The State agencies will implement the remedial program pursuant to existing authority under Florida law and in accordance with State statutory schedules and procedures.

The third factor relied upon by the district court is the United States' continuing power to withhold consent and invoke dispute resolution mechanisms. However, we read the retained jurisdiction provision of the district court to be limited to the parties to the Agreement without power to implicate third parties. Thus, jurisdiction is retained only for the purpose of insuring that there will be no unilateral action that would contravene the provisions of the Agreement and precipitate fresh litigation. This limitation provision does not provide the control necessary to presently treat the State agencies' remedial activity as major federal action.

The United States does not contend that NEPA obligations will never arise during the implementation of the remedial measures. The objection is to scope and timing. We agree. NEPA obligations may attach to specific activities which may be proposed as part of the State's implementation program. A federal agency may undertake a major federal action in the form of funding as a part of the restoration program, issuance of a permit or license to a State agency. or a change of operations over which the federal agency has authority.

It would be premature and serve no useful purpose to now require the preparation of an EIS when no specific federal action has been proposed. *See Environmental Defense Fund v. Marsh,* 651 F.2d 983, 999 (5th Cir. Unit A July 1981) (preparatory designs and studies not completed); *Kleppe v. Sierra Club,* 427 U.S. 390, 399-402, 96

S.Ct. 2718, 2725-27, 49 L.Ed.2d 576 (1976) (no factual predicate for EIS without a proposed plan). NEPA does not require evaluation of hypothetical proposals, impacts and alternatives concerning a nonexistent federal proposal. This would seem to be an impossible task. If and when such activities are actually proposed, the responsible agency will have to comply with NEPA requirements, and the question of whether an EIS is required will then be addressed. Now, none of these types of federal action has yet been performed.

CONCLUSION

In the appeal of the Intervenors, No. 92-4314, the district court and this court have jurisdiction of the cause pursuant to the provisions of 28 U.S.C. §§ 1331 and 1345.

In view of the enactment of the Everglades Forever Act by the Florida legislature during the pendency of this appeal, we REMAND this cause to the district court for further consideration in the light of this legislation.

In the appeal of the United States, No. 92-4831, the United States is not required, at this time, to prepare an EIS under NEPA.

APPENDIX B

[Filed Oct. 11, 1994]

IN THE UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

No. 92-4314

UNITED STATES OF AMERICA,
Plaintiff-
Counterclaim defendant
Appellee-Cross-appellant,

FLORIDA KEYS CITIZEN COALITION, FLORIDA AUDUBON SOCIETY, FLORIDA WILDLIFE FEDERATION, ENVIRONMENTAL DEFENSE FUND, SIERRA CLUB, NATIONAL WILDLIFE FEDERATION, WILDERNESS SOCIETY, NATIONAL PARKS & CONSERVATION ASSOCIATION, DEFENDERS OF WILDLIFE AND TREASURE COAST ENVIRONMENTAL COALITION, MICCOSUKEE TRIBE OF INDIANS OF FLORIDA,

Intervenor Plaintiffs-
Appellees,

versus

SOUTH FLORIDA WATER MANAGEMENT DISTRICT and FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION,
Defendants-
Counterclaim plaintiffs-
Appellees,

TILFORD CREEL,
Defendant-
Counterclaim plaintiff-
Appellee.

CAROL BROWNER,
Defendant-Appellee,

CITY OF BELLE GLADE, CITY OF CLEWISTON,
Intervenor defendants-
Appellants-
Cross-appellees,

WESTERN PALM BEACH COUNTY FARM BUREAU, INC.,
FLORIDA SUGAR CANE LEAGUE, INC.,
ROTH FARMS, INC. and K.W.B. FARMS,
Intervenor defendants-
Counterclaim plaintiffs-
Appellants-
Cross-appellees,

FLORIDA FRUIT & VEGETABLE ASSOCIATION,
Intervenor defendants,

SOUTH BAY GROWERS, INC.,
Movants,

COLONEL BRUCE A. MALSON, *et al.*,
Counterclaim defendants.

No. 92-4831

UNITED STATES OF AMERICA,
Plaintiff-
Counterclaim defendant-
Appellant,

FLORIDA KEYS CITIZEN COALITION,
Intervenor-Plaintiff-
Appellee,

FLORIDA AUDUBON SOCIETY, *et al.*,
Intervenor Plaintiffs,

versus

SOUTH FLORIDA WATER MANAGEMENT DISTRICT,
Defendant-
Counterclaim plaintiff-
Appellee,

FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION,
Defendant-
Counterclaim plaintiff-

TILFORD CREEL, *et al.*,
Defendants,

CITY OF BELLE GLADE, CITY OF CLEWISTON,
Intervenor defendants-
Appellants-
Cross-appellees,

WESTERN PALM BEACH COUNTY FARM,
FLORIDA SUGAR CANE LEAGUE, INC.,
ROTH FARMS, INC. and K.W.B. FARMS,
Intervenor defendants-
Counterclaim plaintiffs-
Appellants-
Cross-appellees,

FLORIDA FRUIT & VEGETABLE ASSOCIATION,
Intervenor defendants,

SOUTH BAY GROWERS, INC.,
Movant,

COLONEL BRUCE A. MALSON, *et al.*,
Counterclaim defendants.

ON PETITION FOR REHEARING

BEFORE: BLACK, Circuit Judge, DYER, Senior Circuit Judge and ALAIMO*, Senior District Judge.

PER CURIAM:

The Petition for Rehearing filed by Intervenor-Appellants, Farm Bureau, Roth Farms and K.W.B. Farms, is denied.

ENTERED FOR THE COURT:

/s/ Susan H. Black
United States Circuit Judge

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* Honorable Anthony A. Alaimo, Senior U.S. District Judge for the Southern District of Georgia, sitting by designation.

APPENDIX C

UNITED STATES COURT OF APPEALS
ELEVENTH CIRCUIT

Nos. 89-6029, 89-6269

UNITED STATES OF AMERICA,
Plaintiff-Appellee,

Florida Keys Citizen Coalition, Florida Wildlife Federation, Environmental Defense Fund, Sierra Club, National Wildlife Federation, Wilderness Society, National Parks & Conservation Association and Defenders of Wildlife,
Plaintiffs-Intervenors-Appellees,

FLORIDA AUDUBON SOCIETY, *et al.*,
Plaintiffs-Intervenors,

v.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, JOHN R. WOODRASKA and FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION,
Defendants-Appellees,

DALE TWACHTMAN,
Defendants,

CITY OF BELLE GLADE,
Defendant-Intervenor,

WESTERN PALM BEACH COUNTY FARM BUREAU, INC., FLORIDA FRUIT AND VEGETABLE ASSOCIATION, FLORIDA SUGAR CANE LEAGUE, INC., ROTH FARMS, INC., K.W.B. FARMS AND BEARDSLEY FARMS, INC.,
Movants-Appellants.

UNITED STATES OF AMERICA,
Plaintiff-Appellee,

v.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, *et al.*,
Defendants,

WESTERN PALM BEACH COUNTY FARM BUREAU, INC., *et al.*,
Appellants.

Appeals from the United States District Court
for the Southern District of Florida

Jan. 28, 1991

Before HATCHETT and ANDERSON, Circuit Judges, and ESCHBACH *, Senior Circuit Judge.

ESCHBACH, Senior Circuit Judge:

This is an appeal by three farm corporations and three agricultural organizations (together, the "Farm Interests") of the District Court's order denying them intervention under Fed.R.Civ.P. 24(a) and (b). The Farm Interests, or their members, rely on the defendant South Florida Water Management District (the "Water District") to provide irrigation and flood control services for their crops. The Farm Interests claim to be proper parties to this suit because the plaintiff United States seeks to restrict the Water District's operations. The United States claims that the Water District releases water polluted with farm runoff and that this pollution is strangling the mosaic of plants and animals that comprise the Loxahatchee National Wildlife Refuge and Everglades National Park. We hold that the Farm Interests have the right to intervene in this case. This right results solely by reason of the issues raised in Count I of the United States' Amended Complaint,[1] which asks the District Court to translate

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* Honorable Jesse E. Eschbach, Senior U.S. Circuit Judge for the Seventh Circuit, sitting by designation.

[1] The docket sheet for this case indicates that the United States filed a Second Amended Complaint on February 8, 1990, which

the state's narrative water quality standards into numeric criteria. The Farm Interests derive no right to intervene, however, by reason of the issues raised in Counts II, III, and IV, which assert that the Water District is violating state permitting requirements and has breached two contracts with the United States. On remand, the District Court may, if it finds appropriate, restrict the Farm Interests' participation in this case to the issues relating to Count I, or may bifurcate the proceedings between Count I and the other counts to promote judicial efficiency.

Jurisdiction

This Court has provisional jurisdiction under the "anomalous rule [that] has evolved in the federal appellate courts concerning the appealability . . . of an order denying intervention." *Weiser v. White*, 505 F.2d 912, 916 (5th Cir.1975).[2] Under this rule, "[i]f the district court was correct in denying the motion to intervene, this court's jurisdiction evaporates and we must dismiss the appeal for want of jurisdiction. If the district court erred, we retain jurisdiction and must reverse." *Federal Trade Comm'n v. American Legal Distributors*, 890 F.2d 363, 364 (11th Cir.1989). The rule is "anomalous" because of the "seemingly inconsistent approach of reaching the merits to determine jurisdiction." *Weiser*, 505 F.2d at 917. Not surprisingly, this Court has noted "criticism of this rule, advocating a simple review of the denial of intervention as a final order." *United States v. Jefferson County*, 720 F.2d 1511, 1515 n.12 (11th Cir.1983). Under either approach, we proceed to the merits.

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apparently differs from the Amended Complaint only in stating that the United States has complied with certain notice requirements that apply to Counts I and II. Because the Second Amended Complaint was not included in the record on appeal, we address the Amended Complaint, as the parties did in their briefs.

[2] In *Bonner v. City of Prichard*, 661 F.2d 1206, 1209 (11th Cir. 1981) (en banc), this Court adopted as precedent decisions of the former Fifth Circuit rendered prior to October 1, 1981.

Intervention by Right

Under Fed.R.Civ.P. 24(a), a nonparty may intervene by right if:

> the applicant claims an interest in the property or transaction which is the subject of the action and the applicant is so situated that the disposition of the action may as a practical matter impair or impede the applicant's ability to protect that interest, unless the applicant's interest is adequately represented by existing parties.

To support intervention, a nonparty's interest must be "direct, substantial, [and] legally protectable." *Chiles v. Thornburgh*, 865 F.2d 1197, 1213 (11th Cir.1989), *quoting Athens Lumber Co. v. Federal Election Comm'n*, 690 F.2d 1364, 1366 (11th Cir.1982), *quoting Howse v. S/V "Canada Goose I"*, 641 F.2d 317, 320-21 (5th Cir. 1981).[3] A nonparty may have a sufficient interest for some issues in a case but not others, and the court may limit intervention accordingly. *See Howard v. McLucas*, 782 F.2d 956, 960-61 (11th Cir.1986) (restricting intervenors to participation in the single, remedial issue for which they had "standing").[4] Also, the court

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[3] The requirement of a direct, substantial, legally protectable interest makes practical sense and reinforces the other criteria under Rule 24(a). A nonparty with an indirect or insubstantial interest by definition has little at stake in the proceedings and so cannot suffer significant harm from the outcome. Further, a nonparty with a tenuous interest in the proceedings will have little incentive to litigate fully, a point that reinforces the Rule's criterion of adequate representation. Similarly, the requirement that the nonparty assert an interest that is legally protectable reinforces the Rule's criterion of impairment of interest. Denial of intervention cannot impair a nonparty's ability to protect its interests if that nonparty would have no legal protection for those interests in any event.

[4] *See also Harris v. Pernsley*, 820 F.2d 592, 599 (3rd Cir.) (stating that an applicant for intervention "may have a sufficient interest to intervene as to certain issues in an action without having an interest in the litigation as a whole"), *cert. den.* 484 U.S. 947, 108 S.Ct. 336, 98 L.Ed.2d 363 (1987); *United States v.*

may order a separate trial of claims or issues subject to intervention when "conducive to expedition and economy." *See* Fed.R.Civ.P. 42(b). In the present case, the main issue is whether and to what extent the Farm Interests have a legally protectable interest at stake. This, in turn, depends on the specific claims that the United States makes in its Amended Complaint.

Count I: Violation of Narrative State Law Standards

In Count I of its Amended Complaint, the United States asks the District Court to translate narrative state water quality standards into numeric limits. Specifically, the United States alleges that the Water District is violating the Florida Surface Water Improvement and Management Act of 1987 (the "SWIM Act"), which provides that the Water District's operations must not "adversely affect indigenous vegetation communities or wildlife." Fla.Stat. § 373.4595(2)(a)(1); *see also* Fla.

American Telephone & Telegraph Co., 642 F.2d 1285, 1291 (D.C. Cir.1980) (discussing with approval the rule that "intervention for individual issues . . . [may be] appropriate to protect particular interests, with the limited nature of the intervenor's interest determining the scope of the intervention that should be allowed"); *Bradley v. Milliken*, 620 F.2d 1141, 1142-3 (6th Cir.1980) (ordering intervention "for the limited purpose of presenting evidence" on a single issue, but restricting participation on other issues to the extent that the district court would choose to allow the applicants to serve as *amici*); *cf. Southern v. Plumb Tools*, 696 F.2d 1321, 1321-1323 (11th Cir.1983) (per curiam) (holding that a district court's *failure* to restrict the participation of an intervenor in certain issues at trial was reversible error due to the state evidentiary rules that applied). Restricting intervention to the particular issues for which the proposed intervenor has a sufficient interest accords with standard party practice. Defendants, after all, are often named only for particular counts in multi-party litigation, and their right to participate in the case extends only to issues relating to the counts for which they are named parties. Defendant-intervenors like the Farm Interests may similarly have an interest only in particular counts, and the scope of their participation in the case should correspond with the scope of that interest.

Admin. Code § 17-302.560(19) (barring acts that create "an imbalance in natural populations of aquatic flora or fauna").[5] This narrative standard is unspecific about exactly what concentrations of nitrogen and phosphorous —the particular nutrients at issue in this case—are permisible. But as counsel for the United States stated in oral argument, an order setting maximum concentrations of nutrients is the remedy that the United States seeks.[6] If it finds for the United States on Count I and grants the relief requested, the District Court will in effect translate the narrative water quality standards in the SWIM Act into numeric limits.

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[5] In a footnote to its brief, the United States also alleges a violation of the state's antidegradation rule, which prohibits reduction in the water quality of any "Outstanding Florida Waters" below the quality that existed in 1979. *See* Fla.Admin.Code § 17-3.041(1), (8). This antidegradation rule provides, however, that it "shall be implemented through the [state's] permitting process." Fla.Admin. Code § 17.3041(7). The state's alleged failure to enforce its permitting requirements is the subject of Count II of the Amended Complaint, and the antidegradation rule is better seen as an issue relating to that count than to Count I.

[6] In oral argument, the United States stated:

> The reason that . . . [the SWIM Act states] a narrative standard rather than a numerical standard, is because the impact of nutrients is dependent on the ecosystem. We are not seeking in this lawsuit one numerical standard for the State of Florida. *The only thing that we are concerned with in this lawsuit is a numerical standard for the vegetation in the Park and the Refuge,* and I don't believe from the evidence we have right now that we will be seeking the same numerical standard for the Park and the Refuge.

(emphasis added). In fairness to the District Court, we note that the United States claimed in that forum that it was *not* seeking a numeric standard:

> In regard to the draft SWIM Plan, I believe that this is something in a separate proceeding. . . . *The business of putting a numerical limit on total phosphorous, that is within that separate process,* putting a practical standard . . . on a narrative written standard. That is simply a practical limit. But

The problem is that the SWIM Act directs the Water District to conduct administrative proceedings towards this same end—translating the Act's narrative standards into specific numeric limits. The Water District has issued a draft "Surface Water Improvement and Management Plan for the Everglades," v. 1 and 2 (August 9, 1989) (the "draft SWIM Plan") which proposes numeric standards for implementing the SWIM Act's requirements, and the Water District is currently working on a final version. The Act delegates specific authority to the Water District to develop the SWIM Plan. *See* Fla.Stat. § 373.451(5) (stating, "The Legislature finds that surface water problems can be corrected . . . through plans and programs . . . that are planned, designed, and implemented by the water management districts"). The broad narrative language of the SWIM Act confirms the grant of administrative discretion to define what the Act's standards mean. *Cf. Chevron v. Natural Resources Defense Council*, 467 U.S. 837, 843-44, 104 S.Ct. 2778, 2781-83, 81 L.Ed.2d 694 (1984) (discussing the implicit grant of administrative discretion in legislative use of broad statutory language). In short, the United States in Count I asks the District Court to partially pre-empt the administrative development of the SWIM Plan by specifying the numeric standards that apply under the SWIM Act.

The Farm Interests have a legally protectable right under the SWIM Act to participate and comment in the administrative development of the final SWIM Plan, and to pursue an administrative appeal. *See* Fla.Admin.Code § 17-43.035(2) (requiring public hearing in the preparation of the SWIM Act); Fla.Stat. § 373.114 (providing a right to administrative appeal which applies to the final SWIM Plan). Besides being legally protectable, the Farm Interests' right is directly and substantially related to

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that is not presently in this litigation. *We are not asking for a number.*

Transcript of Hearing held on November 1, 1989, pp. 30-31 (emphasis added).

Count I. The right is direct because it is a right to participate in the very matter being decided—what numeric standards should apply under the SWIM Act to the water that the Water District releases. And the right is substantial because it is the Farm Interests' only means of defending their interest in the Water District's services.

The District Court's decision in this case may impair the Farm Interests' ability to protect their right to participate in the administrative proceedings. If the District Court issues an injunction setting numeric water quality limits, that injunction will of course bind the Water District. The Water District could not deviate from the terms of the District Court's order by its own initiative. The District Court's decision could thus erase the Farm Interests' legally protectable right to participate in the administrative development of the numeric standards that apply under state law.[7]

Absent intervention in this case, some avenues of relief would remain open to the Farm Interests through subsequent litigation, because they cannot be bound to a decision to which they are neither party nor privy. *See In re Birmingham Reverse Discrimination Employment Litigation*, 833 F.2d 1492, 1498 (11th Cir.1987) (holding that one who is not a privy or party to litigation may not, as a matter of due process, be bound by the decision), *affirmed sub nom Martin v. Wilks*, 490 U.S. 755,

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[7] Viewed from a different angle, Count I of the Complaint seeks to move a state administrative task—development of standards for implementing the broad commands of the SWIM Act—to federal court. If the state is not doing its job and statutory authority supports federal proceedings, this move is legally proper. The problem is that various groups have the right to participate in the decision in the administrative forum. If their rights of participation are not to be lost, the administrative participants must receive a corresponding right to participate in the judicial proceedings. So too, the federal court needs to hear what these administrative participants have to say so that it can make an informed decision.

109 S.Ct. 2180, 104 L.Ed.2d 835 (1989).[8] In this regard, the Farm Interests would remain free to challenge the final SWIM Plan in state court. *See* Fla.Stat. § 120.68 (providing for judicial review of final administrative action in state courts). Even so, a subsequent court would likely be reluctant, as a practical matter, to issue a decision that conflicts with the District Court's order in the present case. This reluctance may entail something more than the usual respect for prior decisions under the doctrine of *stare decisis*. The effect of the District Court's decision on subsequent courts thus provides a further basis for concluding that the Farm Interests' have shown a potential impairment of their rights sufficient to establish intervention. *See Chiles v. Thornburgh*, 865 F.2d 1197, 1214 (11th Cir.1989) (stating that the potential *stare decisis* effect of a judgment may, by itself, support intervention). In short, the Farm Interests have a direct, substantial, legally protectable interest in Count I, and this case may impair their ability to defend that interest.

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[8] In his dissent to the Eleventh Circuit's opinion, Judge Anderson "agree[d] with the . . . court that the[] plaintiffs were not parties to the prior litigation which resulted in the consent decree [at issue], and . . . [were] not bound by the consent decree and should be free on remand to . . . test its validity." 833 F.2d at 1503. He concluded, however, that certain practical consequences could still follow from the consent decree—specifically, that a party to the decree could rely on it and use compliance with its terms as evidence of nondiscriminatory intent in the subsequent suit by the nonparties. *Id.*, at 1502. The Supreme Court's affirmance did not take any position on this issue. *See* 490 U.S. 761, 109 S.Ct. at 2184 n. 1.

As Judge Anderson suggested in oral argument in the present case, the Water District can protect itself against the risk of multiple lawsuits by using Fed.R.Civ.P. 19 and 23 to join necessary parties or to certify a defendant class for any issues (in particular, those raised in Count I) where this risk is present. "The parties to a lawsuit presumably know better than anyone else the nature and the scope of the relief sought in the action. . . . It makes sense therefore to place on them a burden of bringing in additional parties where such a step is indicated." *Id.*, 490 U.S. at 765, 109 S.Ct. at 2186.

The final question is whether the Farm Interests' are adequately represented by the Water District. The Farm Interests' position is at odds with that of the Water District in key respects. For example, the draft SWIM Plan that the Water District has issued specifies a phosphorous concentration of 0.03 ppm for water released to the Everglades system. *See* Draft Swim Plan, v. II, p. 117. The Farm Interests do not accept this figure, and point to the statement by the Water District before the District Court that even a less restrictive standard of 0.05 ppm of phosphorous would entail "draconian consequences" for the farms using the water. Transcript of Hearing held on March 7, 1989, p. 11. In these circumstances, the Farm Interests should not be required to rely on the Water District to represent them. *See Chiles v. Thornburgh*, 865 F.2d 1197, 1214 (11th Cir.1989) (holding that the "possibility" that a party would not sufficiently "emphasize" the position of intervenors meant that adequate representation was not present).

In sum, the Farm Interests have a direct, substantial, legally protectable interest in participating in the development of numeric water quality standards under state law. Their ability to protect this interest will be impaired if the District Court issues an injunction specifying numeric standards for the Water District because that injunction will bind the Water District in its administrative proceedings, and will have at least a *stare decisis* effect in subsequent litigation. Finally, the Water District may not adequately represent the Farm Interests because the two differ on the numeric standard that applies. The Farm Interests thus meet the criteria for intervention by right by reason of the issues raised in Count I. On remand, the District Court may choose to condition their intervention in this case on such terms as will be consistent with the fair, prompt conduct of this litigation.[9]

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[9] "An intervention of right . . . may be subject to appropriate conditions or restrictions responsive among other things to the requirements of efficient conduct of proceedings." Fed.R.Civ.P.

Counts II, III, and IV:

Failure to Obtain State Permits and Breach of Contract

In Count II of its Amended Complaint, the United States contends that the Water District has violated Florida law by operating pumps, water control structures, and canals without required permits. In Counts III and IV, the United States contends that the Water District has breached a February 10, 1984 contract between it and the Army Corps of Engineers, and a June 8, 1951 contract between it and the United States. Again, the initial question is whether the Farm Interests have a legally protectable interest in the United States' contentions. Because their interests are not legally protectable, the Farm Interests derive no right to intervene by reason of the issues raised in these counts.

The Farm Interests have asserted *no* property or other legal right in the Water District's services directly. Instead the Farm Interests say that their economic interests depend on those services. This is not enough.

> "By requiring that the applicant's interest be . . . 'legally protectable,' it is plain that something more than an economic interest is necessary. What is required is that the interest be one which the *substantive* law recognizes as belonging to or being owned by the applicant."

24(a) advisory committee's notes to 1966 amendments. To mention a few options, the District Court may find it appropriate to (1) allow the other parties to produce documents in a single set for the Farm Interests to share and copy among themselves, (2) require the organizational Farm Interests to respond to interrogatories regarding each of their members who claims an interest in the proceedings, and/or (3) limit the Farm Interests to a few or a single counsel. On this last option, see, for example, *Sagebrush Rebellion, Inc. v. Watt*, 713 F.2d 525, 526 and n. 2 (9th Cir. 1983) (stating, "Throughout these proceedings intervenors have . . . spoken with one voice. Nothing in this opinion should be interpreted as approving participation by the intervenors on any other basis").

New Orleans Public Service, Inc., v. United Gas Pipe Line Co., 732 F.2d 452, 464 (5th Cir.) (en banc) (emphasis original), *cert. denied*, 469 U.S. 1019, 105 S.Ct. 434, 83 L.Ed.2d 360 (1984); *see Getty Oil Co. v. Department of Energy*, 865 F.2d 270, 276 (Temp.Em.Ct. App.1988) (stating, "An economic interest . . . alone is insufficient to warrant intervention") (citation omitted). This does not mean that the Farm Interests' economic livelihood is unimportant. It only means that the Farm Interests must show that the present proceedings threaten some substantive legal protection for their livelihood to support intervention by right.

A comparison may help make this point clear. The Farm Interests have referred the Court to the Eighth Circuit's decision in *Ford Motor Co. v. Bisanz Bros., Inc.*, 249 F.2d 22 (8th Cir.1957). In *Ford*, the court of appeals held that Ford Motor Company could intervene by right in a nuisance action by a neighboring landowner against the railroad that served the Ford factory. We believe that *Ford* was rightly decided because, although Ford did not own the railroad, the railroad apparently could not have suspended service to Ford without an order from the Interstate Commerce Commission, after notice to Ford and a hearing in which Ford would have had the right to participate. *Id.*, at 23, 24. Thus, Ford claimed a "*right* to have the railroad furnish service" and the railroad had "the *obligation*" to provide those services. *Id.*, at 28 (emphasis added). If, on the other hand, the railroad had been free to suspend its service, Ford would have had no legally protectable interest at stake, no matter how much Ford's economic interests may have depended on that service. The holding in *Ford* thus supports the rule that a legal interest in the proceedings is necessary to support intervention.

Again, the Farm Interests have not asserted any legal right in the Water District's services—however much their economic interests may depend on those services. Nor have the Farm interests claimed any right to participate

in the state's decision on the permit requirements that apply to the Water District, which is the subject of Count II, or any right as a third-party beneficiary under the 1984 contract, which is the subject of Count III. The Farm Interests do make a passing claim to being third-party beneficiaries under the 1951 contract in Count IV, but this is baseless. The 1951 contract is governed by federal law, which allows identifiable third parties to assert direct obligations to them under a contract. *See, e.g., Berberich v. United States*, 5 Cl.Ct. 652, 655-56 (1984), *aff'd without opinion*, 770 F.2d 179 (Fed.Cir.1985). The Farm Interests fail to point to any specific language in the 1951 contract that confers rights on them. Instead they simply rely on the contract's broad purposes of flood control and environmental protection to support their claim. These purposes extend to the Farm Interests, but they also extend to nearly everyone else in central and southern Florida. The Farm Interests are not third-party beneficiaries of the 1951 contract.

In short, the Farm Interests have no legally protectable interest at stake in the issues raised in Counts II, III, or IV of the Amended Complaint. With no legally protectable interest, the Farm Interests derive no right to intervene from the issues raised in these counts.[10] As discussed above, the District Court may prevent delay in the resolution of these counts by placing appropriate conditions on the Farm Interests' intervention in this case, or

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[10] There is some dispute as to whether the United States has a fifth count for common law nuisance lurking in its Amended Complaint. The United States contends that the "delivery of nutrient-loaded waters [by the Water District] constitutes a nuisance under Florida law" and asks for an injunction to "abate the nuisance." Amended Complaint, ¶¶ 48, 68. The United States clarified in oral argument, however, that it is referring to Fla.Stat. § 373.433, which declares acts in violation of the state's permit and water quality requirements to be a statutory nuisance. The nuisance claim, then, does not add a substantive count to the United States' other claims arising under state law.

by ordering separate trial and discovery of one or more of these counts.[11]

Permissive Intervention

The Farm Interests also ask this Court to review the District Court's denial of permissive intervention under Fed.R.Civ.P. 24(b). We review for abuse of discretion. *See Chiles v. Thornburgh*, 865 F.2d 1197, 1215 (11th Cir.1989). The District Court concluded that permissive intervention would "delay and prejudice the rights of the original parties" and "make this case even more unmanageable than it already appears to be" by adding witnesses and collateral issues. District Court's Order on Motions to Intervene and Rule 19 Joinder, p. 9. We find no abuse of discretion in this decision. In a similar context, Judge Tuttle recently wrote for this Court:

> intervention [in this case] . . . would severely protract the litigation. Although we express no opinion as to the merits of plaintiff's claims, *an action which seeks to preserve the environment from further deterioration deserves refuge from . . . undue delay.*

Manasota-88, Inc. v. Tidwell, 896 F.2d 1318, 1323 (11th Cir.1990) (emphasis added). In the present case, the District Court is correct to use its full discretionary powers—including its discretion to deny permissive intervention—to prevent delay that may lead to further deterioration of the Everglades.

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[11] We note that the 1984 contract that is the subject of Count III may be particularly appropriate for separate trial and discovery because it already lists numeric water quality standards for phosphorous, nitrogen, and other constituents. For this reason, the determination of whether the Water District has breached this contract may be straightforward. A separate trial and discovery on this count may thus allow the District Court to provide prompt, initial relief, if it turns out that the United States can prove its allegations.

Conclusion

The Farm Interests meet the criteria for intervention by right by reason of the issues raised in Count I of the Amended Complaint. The order denying intervention is reversed and the case is remanded to the District Court to allow intervention subject to such conditions as the District Court finds appropriate consistent with this opinion.

Reversed and Remanded.

HATCHETT, Circuit Judge, dissenting in part:

I dissent from that portion of the majority opinion which allows the Farm Interests to intervene as a matter of right. The majority's reversal of the district court on Count I is for two reasons: (1) "the district court's decision in this case may impair the Farm Interest ability to protect their right to participate in the administrative proceedings. If the district court issues an injunction setting numeric water quality limits, that injunction will of course bind the water district"; and (2) "viewed from a different angle, Count I of the complaint seeks to move a state administrative task—development of standards for implementing broad commands of the SWIM Act—to federal court."

The majority's reliance on these two reasons indicates that intervention of right is being provided to the Farm Interest because the majority has imagined "horribles." The majority recognizes that Count I of the complaint seeks to move a state administrative task to federal court, but concludes that an experienced district court judge does not or will not recognize the shift from Florida administrative proceedings to federal court litigation. At this early stage of the proceedings, I would affirm the district court and allow it to continue sharpening the issues mindful of the affect a numeric level determination would have on the Farm Interests' administrative remedies. Surely, if the time arises where the Farm Interests' remedies will be affected, the district court will take steps to protect those interests.

Of course, we must not forget that the courts of Florida, the courts of the United States, and Florida's administrative agencies, are open and capable of addressing issues framed by the Farm Interests.

APPENDIX D

[Filed Mar. 22, 1991]

IN THE UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

Nos. 89-6029 and 89-6269

UNITED STATES OF AMERICA, *et al*,
Plaintiffs-Appellees

versus

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, *et al*,
Defendants-Appellees

WESTERN PALM BEACH COUNTY FARM BUREAU, INC., *et al*,
Movants-Appellants

Appeal from the United States District Court
for the Southern District of Florida

BEFORE: HATCHETT and ANDERSON, Circuit Judges, and ESCHBACH *, Senior Circuit Judge.

ORDER:

The three farm corporations and three agricultural organizations that have intervened in this case (together, the "Farm Interests") have filed a "Suggestion and Motion as to Lack of Jurisdiction." We decline to consider this motion. As we held in our opinion in the underlying appeal, the Farm Interests may intervene in this case to

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* Honorable Jesse E. Eschbach, Senior U.S. Circuit Judge for the Seventh Circuit, sitting by designation.

protect their right to participate in the development of numeric limits implementing the state's narrative water quality standards. The jurisdictional issues that the Farm Interests raise in their motion are only indirectly related to the protection of this right. Further, the Farm Interests are adequately represented on the jurisdictional issues by the defendants South Florida Water District and Florida Department of Environmental Regulation, which have already raised many of these issues with the District Court. Finally, even if the Farm Interests were proper parties to raise the jurisdictional issues in their motion, it would be procedurally inappropriate for us to extend our limited appellate review under the anomolous rule to decide issues not raised in the parties' briefs or in this Court's published opinion.

The Farm Interests may still seek to present their jurisdictional motion to the District Court. If they choose this step, they will be well advised to ask the District Court's permission first. As we have stated, the District Court may condition the Farm Interests' intervention in this case on such terms as will be consistent with the fair, prompt conduct of this litigation. This authority allows the District Court to dispose in summary fashion (as we have done here) of any motions that the Farm Interests may file beyond the scope of their right to participate in these proceedings.

APPENDIX E

[Filed Aug. 22, 1991]

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

Case No. 88-1886-CIV-HOEVELER

UNITED STATES OF AMERICA, *et al.*,
Plaintiffs,

vs.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT; TIMER E. POWERS, Interim Executive Director, South Florida Water Management District; FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION; and CAROL M. BROWNER, Secretary, Florida Department of Environmental Regulation, *et al.*,
Defendants.

ORDER GRANTING UNITED STATES' MOTION TO STRIKE THE SUGGESTION OF LACK OF ARTICLE III JURISDICTION BY INTERVENOR DEFENDANTS FARM BUREAU, ROTH FARMS, K.W.B. FARMS

THIS CAUSE is before the Court on the United States' Motion, pursuant to Fed. R. Civ. P. 12(f), to Strike the "Suggestion of Lack of Article III Jurisdiction" filed by Intervenor Defendants Farm Bureau, Roth Farms, and K.W.B. Farms ("Farm Bureau").

In its opinion granting the Farm Bureau intervention as to Count I of the United States' Amended Complaint, the Eleventh Circuit limited intervention to the development of numeric water quality standards. *United States*

v. South Florida Water management District, 922 F.2d 704 (11th Cir. 1991). Despite this limited grant of intervention, the Farm Bureau subsequently filed with the Eleventh Circuit a "Suggestion and Motion as to Lack of Federal Jurisdiction," in which the Farm Bureau requested dismissal of the entire case. In denying this motion, the Eleventh Circuit stated:

> As we have held in our opinion in the underlying appeal, the Farm Interests may intervene in this case to protect their right to participate in the development of numeric limits implementing the state's narrative water quality standards. The jurisdictional issues that the Farm Interests raise in their motion are only indirectly related to the protection of this right. Further, the Farm Interests are adequately represented by the defendants South Florida Water District and Florida Department of Environmental Regulation, which have already raised many of these issues with the District Court.
>
> The Farm Interests may still seek to present their jurisdictional motion to the District Court. If they choose this step, they will be well advised to ask the District Court's permission first. As we have stated, the District Court may condition the Farm Interests' intervention in this case on such terms as will be consistent with the fair, prompt conduct of this litigation. This authority allows the District Court to dispose in summary fashion (as we have done here) of any motions that the Farms Interests may file beyond the scope of their right to participate in these proceedings.

United States v. South Florida Water Management District, (11th Cir. March 22, 1991).

The Suggestion filed with this Court, even more so than that presented to the Eleventh Circuit, constitutes a broad attack on the Court's jurisdiction over the entire

underlying proceeding. As such, it greatly exceeds the limited scope of intervention granted by the Eleventh Circuit. This Court's Order of July 9, 1991, implementing the mandate of the Eleventh Circuit should be construed by all parties to this case as granting the Farm Interests intervention no broader in scope than that recognized by the court of appeals as necessary to protect the Farm Interests' right to participate in the development of numeric water quality standards. Accordingly, it is

ORDERED AND ADJUDGED that the motion to strike the Farm Bureau's Suggestion of Lack of Article III Jurisdiction is GRANTED.

DONE AND ORDERED in chambers at Miami, Florida this 22nd day of August, 1991.

/s/ William M. Hoeveler
WILLIAM M. HOEVELER
United States District Judge

cc: All counsel of record

APPENDIX F

[Filed Feb. 24, 1992]

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

Case No: 88-1886-CIV-HOEVELER

UNITED STATES OF AMERICA, *et al.*,
Plaintiff,

vs.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT; TILFORD CREEL, Executive Director, South Florida Water Management District; FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION; and CAROL M. BROWNER, Secretary, Florida Department of Environmental Regulation, *et al.*,

Defendants.

MEMORANDUM OPINION AND ORDER ENTERING SETTLEMENT AGREEMENT AS CONSENT DECREE

The Court on this day approves and enters as a consent decree the settlement agreement ("Agreement") executed by plaintiff United States and defendants South Florida Water Management District ("District") and the Florida Department of Environmental Regulation ("DER").[1]

The Agreement resolves all claims by the original parties in a complex environmental lawsuit filed more than three years ago by the United States against the District

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[1] As used in this Order, the term "state agencies" refers to the District and DER.

and DER for alleged contamination of the Loxahatchee National Wildlife Refuge (the "Refuge") and the Everglades National Park (the "Park") caused by nutrient-rich farm runoff in waters released into the Refuge and Park through structures operated by the District. The United States claims that high levels of phosphorous in farm-water runoff have altered the fragile ecosystems of the Park and Refuge, producing dense cattails in place of the native sawgrass and wet prairie communities and endangering indigenous plant and animal life.

The Agreement is supported by the numerous environmental groups permitted to intervene in this action and opposed by defendant-intervenors Cities of Belle Glade and Clewiston (the "Cities") and several agricultural organizations ("Farm Interests") (collectively referred to as "defendant-intervenors"). As set forth below, the Court finds that the objections to the Agreement raised by defendant-intervenors, with one exception, are either satisfied by this Order or are without merit. The exception to which the Court refers is the objection based on the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 *et seq.* Nonetheless, because rejection of the Agreement on this ground alone would frustrate the very purpose behind the statute, the Court will require compliance with NEPA simultaneous with, and not as a condition to, implementation of the Agreement.

I. THE AGREEMENT

A review of the terms of the Agreement reveals an ambitious strategy to restore and preserve the Everglades ecosystem. In broad outline, the Agreement establishes interim and long-term phosphorous concentration limits for the Park and Refuge and delineates specific remedial programs designed to achieve these limits. The remedial programs consist of stormwater treatment areas ("STAs") and a regulatory permitting program aimed at agricultural discharges from the Everglades Agricultural Area

("EAA"). The STAs, to be constructed by the District on 35,000 acres of land in the EAA, are large water filtration marshes designed to process and remove nutrients from agricultural runoff destined for the Park and Refuge. The STAs will thus act as a "buffer zone" between the agricultural area and the Park and Refuge, receiving stormwater directly from agricultural drainage canals and purifying the water before it enters the Park and Refuge. The regulatory program complements and lessens the work of the STAs by seeking to reduce the level of phosphorous in agricultural runoff entering the STAs. Pursuant to this program, the District or DER will regulate the water quality of agricultural discharges through a permitting scheme by which permit applicants will be required to comply with designated phosphorous load allocations and adopt best management practices aimed at reducing the levels of phosphorous in agricultural discharge. The combination of the STAs and the regulatory program are expected to achieve an 80% long-term reduction in phosphorous loads from the EAA.

In addition to these remedial measures, the Agreement establishes a research and monitoring program, a technical oversight committee to supervise the research and monitoring, and a schedule for the completion of administrative actions consistent with the terms of the Agreement.

The Agreement is notable in at least two respects. First, the basic programs and measures set forth in the Agreement track substantially the requirements of the Marjorie Stoneman Douglas Everglades Protection Act ("Everglades Protection Act"), Fla. Stat. § 373.4592 (1991), a state legislative measure enacted in response to this lawsuit. Among other things, the Everglades Protection Act requires the District to establish:

> —strategies for developing programs and projects designed to bring facilities into compliance with applicable water quality standards and restore the

> Everglades hydroperiod, including the identification and acquisition of lands for the purpose of water treatment or implementation of stormwater management systems . . . and the development of a permitting system for discharges into waters managed by the District;
>
> —strategies for establishing research programs to measure program and project effectiveness;
>
> —recommended ambient concentration levels and discharge limitations for phosphorous appropriate to achieve and maintain compliance with applicable state water quality standards;
>
> —proposed interim concentration levels designed to achieve [compliance with water quality standards] to the maximum extent practicable; and
>
> —a monitoring program to ensure the accuracy of data and measure progress toward achieving interim concentration levels and applicable water quality standards.

§§ 373.4592(3)(a)1, 373.4592(3)(a)4, 373.4592(6)(a)1, 373.4592(6)(a)2, 373.4592(6)(a)5.

These strategies and proposals are to be incorporated in the Surface Water Improvement and Management ("SWIM") plan and District permit applications required under the Everglades Protection Act.

Thus, while the Agreement undoubtedly goes further than the Act in terms of specificity, its general approach to the problem is the same.

Second, and more important from the standpoint of the Cities and the Farm Interests, the Agreement is not self-executing, but rather is subject to Florida's Administrative Procedures Act ("APA"), Fla. Stat. § 120.50 (1991) *et seq.*, which affords affected parties the opportunity to challenge proposed agency action.

Under the APA, a party whose substantial interests are or will be affected by agency action is entitled to a Section 120.57 trial-type hearing if there is a disputed issue of material fact and, ultimately, an appeal to the appropriate Florida District Court of Appeal. Fla. Stat. §§ 120.57, 120.68. The Section 120.57 hearing, presided over by an impartial hearing officer, is infused with most, if not all, of the procedural attributes of a bench trial. The parties are permitted an opportunity to respond, to present evidence and argument on the issues involved, to conduct cross-examination and submit rebuttal evidence, to file exceptions to the hearing officer's recommended order, and to be represented by counsel. § 120.57(1)(b)4. The parties may also submit pleadings and are afforded discovery prior to the hearing in accordance with the Florida Rules of Civil Procedure. §§ 120.57(1)(b)5, 120.58(1)(b). As the Section 120.57 hearing serves the dual purpose of adjudicating disputed facts and enabling parties adversely affected by the proposed action to change the agency's mind, the role of the hearing officer is to make findings of fact and determine if the evidence supports, or warrants a conclusion at odds with, the proposed action. *See Heifetz v. Department of Business Regulation*, 475 So.2d 1277, 1281 (Fla. 1st DCA 1985); *Capeletti Bros. v. State Dep't of Gen. Servs.*, 432 So.2d 1359, 1363 (Fla. 1st DCA 1983).

In considering the hearing officer's recommended order, the agency must accept the hearing officer's findings of fact if they are supported by competent substantial evidence and may not reweigh evidence, rejudge the credibility of witnesses, or use conclusions of law to overturn those findings of fact in order to fit a desired result. § 120.57(1)(b)10; *See Heifetz*, 475 So.2d at 1281; *South Florida Water Management Dist. v. Caluwe*, 459 So.2d 390, 394-95 (Fla. 4th DCA 1984); *McDonald v. Dep't of Banking and Finance*, 346 So.2d 569 (Fla. 1st DCA 1977). If the agency determines that the officer's findings of fact are not supported by the record, the

reasons underlying this conclusion must be stated with particularity in its final order. § 120.57(1)(b)10. The agency's final order, and thus its compliance with the above requirements, is subject to judicial review in the Florida District Courts of Appeal. *See* § 120.68. It is by virtue of these procedures that the APA ensures that an agency's final action is supported by the evidence developed in the record.

Because the regulatory measures called for in the Agreement are to be undertaken by the District and DER and therefore constitute "agency action" subject to the APA, substantially affected parties, including the Cities and the Farm Interests, will be able to subject these measures to independent administrative and judicial scrutiny. To the extent, then, that the agencies' implementation of the Agreement may ultimately impose burdens on the Cities and the Farm Interests, these burdens will be imposed only as a result of an administrative process in which the Cities and Farm Interests are allowed to participate, and only if they are warranted by the facts as developed in that process.

The Cities and the Farm Interests do not dispute the adequacy of the APA in protecting their interests with regard to the actions contemplated by the Agreement. To the contrary, they have made it clear that they would prefer that the issues raised by this lawsuit be adjudicated in the state administrative process. Their primary concern is that to the extent that the Agreement binds the agencies to a particular course of regulatory action, their administrative rights are rendered meaningless because the Agreement will have predetermined the final agency action. *See Capeletti Bros.*, 432 So.2d at 1364 ("Section 120.57 proceedings are intended to formulate final agency action, not to review action undertaken earlier and preliminarily."). If, in fact, the Agreement is a *fait accompli*, then an administrative hearing is an exercise in futility.

In response to this concern, the settling parties have submitted a Joint Status Report which makes clear that the Agreement is not intended to require the agencies to favor the terms of the Agreement over a hearing officer's contrary findings of fact supported by competent evidence. As interpreted by the Court, the intention of the settling parties is that the agencies are bound in only two respects as far as the administrative process is concerned. First, the agencies must propose those measures set forth in the Agreement which are subject to the APA. They are not, however, required to adopt these measures as final action in the face of conflicting findings of fact or if persuaded that such action goes against the weight of the evidence established in the Section 120.57 hearing. Indeed, should the state administrative process result in a finding inconsistent with that contemplated by the Agreement, the state agencies, consonant with their obligations under state law, must respect that result. Second, the agencies are "bound" in the sense that if the outcome of the administrative process precludes them from undertaking final action consistent with the terms of the Agreement, and if the settling parties are unable to agree to a modification of the Agreement after resort to dispute resolution or upon a claim of force majeure,[2] the United States retains the right to return to this Court and have the dispute resolved in a federal forum. Significantly, the Agreement does not dictate how this dispute must be resolved.

So construed, the Agreement imposes a process rather than a result, in effect recognizing an administrative framework while preserving this Court's ultimate jurisdiction over this lawsuit.

As indicated at the December 4, 1991, status conference, the Court proposes to address defendant-intervenors' concerns with regard ot the APA by incorporating in this

[2] The force majeure clause in the Agreement, ¶ 23, includes "unavoidable legal barriers or restraints, including those arising from the actions of persons not Parties to this Agreement."

Order, and making part of the Agreement, terminology which insures that the administrative hearing is meaningful. To that end, the following language, taken in large part from the Joint Status Report and the settling parties' submission of proposed language, is hereby made part of the Agreement [3]:

> 1. The Agreement does not predetermine the outcome of any state proceedings required under Chapter 120, Florida Statutes. Accordingly, any provision of the Agreement that under Florida law must be implemented by the state agencies through administrative proceedings governed by Chapter 120, Florida Statutes, shall have no binding effect upon the agencies within such administrative proceedings and with regard to the agencies' consideration of the hearing officer's recommended order. In any such proceedings, points of entry will be provided as required by law.
>
> 2. Nothing in the Agreement is intended or operates to abrogate the District's and DER's duties to act in accordance with Florida law. Indeed, the Agreement requires the District and DER to fulfill their obligations under existing state law, including the duty to weigh competing evidence on issues of fact or policy, particularly in light of an impartial administrative hearing officer's decision that the evidence warrants a conclusion at odds with the Agreement. Specifically, the Agreement does not require the agencies to favor the terms of the Agreement over a hearing officer's contrary findings of fact supported by competent, substantial evidence.

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[3] By incorporation of this language, the Court disposes of defendant-intervenors' arguments based on the APA and the Farm Interests' due process argument. The suggestion that the parties be bound by the results of the administrative process is rejected for the reason stated in the Court's Order of December 5, 1991.

Having thus clarified the intention and operation of the Agreement, the Court now turns to the remaining objections raised by the Cities and the Farm Interests.

II. DEFENDANT-INTERVENORS' OBJECTIONS

The Cities and the Farm Interests advance a number of arguments in opposition to Court approval of the Agreement. The principal contentions raised are that: (1) the Agreement illegally imposes duties and obligations on defendant-intervenors and undermines their rightful interests; (2) the Court lacks authority to enter a consent decree based on state law claims; (3) the Attorney General lacks authority to maintain and settle this action without the concurrence of other federal agencies; (4) the Agreement impermissibly restricts the discretion of federal agencies by requiring them to undertake certain actions in furtherance of the Agreement's objectives; (5) the Agreement violates the Flood Control Act; and (6) the remedial measures contemplated by the Agreement constitute "major federal action" under NEPA, necessitating preparation of an environmental impact statement. These arguments are addressed, in turn, below.[4]

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[4] Defendant-intervenors' arguments based on alleged state law violations are not addressed as these issues are not properly before the Court; defendant-intervenors have advised the Court that the state law issues are presently pending in, and "properly resolved by," the state courts, and are raised here only to "alert" the Court to their existence. *Farm Interests' brief*, at 32-33. *See Cities' brief*, at 27. Since the defendant-intervenors do not wish this Court to decide these issues, it will not do so. The Court also declines to stay entry of a consent decree pending resolution of these issues by the state courts.

The Court further refrains from addressing the Farm Interests' argument based on the Farmland Protection Policy Act (FFPA), 7 U.S.C. § 4201 *et seq.* The FFPA, by expressly prohibiting private causes of action based on its provisions, *id.* § 4209, precludes judicial review of compliance with its terms.

A. Impact on Nonconsenting Parties

Defendant-intervenors contend that the Agreement impermissibly imposes direct duties and obligations upon them, or otherwise undermines their rightful interests. *See Local No. 93 v. City of Cleveland*, 478 U.S. 501, 529-30 (1986). In particular, the Farm Interests cite the regulatory permitting program, with its requirements of reduced phosphorous loads in farm runoff and adoption of best management practices, and the acquisition of 35,000 acres of farmland for construction of the STAs. The Cities contend that the Agreement requires them to incur financial obligations, obtain permits not heretofore required, and modify existing permits.

This argument misconstrues the nature of the Agreement, as clarified above. The Agreement does not require anything of defendant-intervenors nor does it accomplish of its own force and effect any of the terms which might impair their interests. Certainly the defendant-intervenors cannot claim to incur burdens as a result of actions which are merely proposed. Yet as far as their interests are concerned, that is all the Agreement accomplishes. As noted earlier, any duties or obligations imposed upon defendant-intervenors will come about only as a result of an administrative process in which they are allowed to participate, and not by virtue of this Court's approval of the Agreement.

If indeed it turns out that the defendant-intervenors are unable to persuade an impartial hearing officer that the terms of the Agreement are scientifically unsound or otherwise unwarranted, the result is neither "unreasonable nor proscribed." *United States v. City of Miami*, 664 F.2d 435, 441 (5th 1981).

B. The Court's Authority to Enter a Consent Decree

Defendant-intervenors also argue that the Court lacks authority to enter a consent decree based on state law claims. This contention is both factually and legally incorrect.

Inexplicably, defendant-intervenors fail to recognize the presence of the federal contract claims in Counts III and IV of the United States' Second Amended Complaint. These claims, alleging breaches of two separate contracts between the United States and the District, are governed by federal, not state, law. *See United States v. Seckinger*, 397 U.S. 203, 209-10 (1970); *United States v. Allegheny County*, 322 U.S. 174, 183 (1944), *overruled on other grounds by United States v. City of Detroit*, 355 U.S. 466 (1958) (as noted in *United States v. Fresno County*, 429 U.S. 452, 462 n. 10); *Clearfield Trust Co. v. United States*, 318 U.S. 363, 366 (1943); *United States v. South Florida Water Management Dist.*, 922 F.2d 704, 711 (11th Cir. 1991).

Even if the Agreement seeks to vindicate only the state law claims, the Court has authority to enter a decree resolving those claims as a result of its subject matter jurisdiction under 28 U.S.C. § 1345. As long as a consent decree "spring(s) from and serve(s) to resolve a dispute within the court's subject matter jurisdiction," the court is empowered to enter the decree if it comes within the scope of the case made by the pleadings and advances the objectives of the law it is intended to enforce. *Local No. 93 v. City of Cleveland*, 478 U.S. at 525. *Accord Sansom Comm. v. Lynn*, 735 F.2d 1535, 1538 (3d Cir. 1984); *Camden County Jail Inmates v. Parker*, 123 F.R.D. 490, 497-98 (D.N.J. 1988). Or, as one court has stated: "The power of a court to enter a consent decree emanates from its authority to adjudicate the rights of the parties in the first instance." *Lasky v. Continental Products Corp.*, 804 F.2d 250, 254 (3d Cir. 1986).

Kasper v. Board of Election Comm'rs, 814 F.2d 332 (7th Cir. 1987), cited by defendant-intervenors, is inapposite. In that case, the Seventh Circuit found that an overriding federal interest was necessary to justify a consent decree which would have committed the defendant, the Chicago Board of Election Commissions, to *violate*

state law. *Kasper* thus stands for the proposition that, in the absence of a violation of federal law which might warrant relief inconsistent with state law, state agencies may not by consent decree "liberate themselves from the statutes enacted by the legislature that created them." *Id.* at 342. Nothing about this holding suggests that a consent decree cannot be based on state law claims.

In short, because this Court has subject matter jurisdiction over the United States' claims, it has the power to enforce the Agreement as a consent decree.

C. The Attorney General's Authority to Maintain and Settle This Action

The Farm Interests allege that the Attorney General lacks authority to maintain, and therefore settle, this action because, according to the Farm Interests, the authority to pursue the claims presented in this case belongs exclusively to other federal agencies whose concurrence in the filing and maintenance of this suit has not been sufficiently established. The question of the Attorney General's authority, initially raised in the Farm Interests' brief in opposition to the motions for approval of the settlement, also forms the basis of a separate Motion for Court Inquiry filed by the Florida Sugar Cane League, Inc. (the "League"), a member of the Farm Interests. The Court has accordingly considered the authority cited in both memoranda and finds nothing therein which arguably lends support to this claim.

Without attempting to cover every case and statute invoked by the Farm Interests and the League, the following examples are representative of the degree to which their argument depends upon misstatement and misapplication of the authority cited.

For instance, Farm Interests have cited (but not quoted) the following statutes as requiring that "[p]rior to initiating an action to enforce the property interests of the United States, the Attorney General must be 're-

tained' by client agencies to represent federal interests within the responsibility of the agency requesting help." *Farm Interests' brief*, at 50:

> 28 U.S.C. § 512. Attorney General to advise heads of executive departments: The head of an executive department may require the opinion of the Attorney General on questions of law arising in the administration of his department.
>
> 28 U.S.C. § 514. Legal services on pending claims in departments and agencies: When the head of an executive department or agency is of the opinion that the interests of the United States require the service of counsel on the examination of any witness concerning any claim, or on the legal investigation of any claim, pending in the department or agency, he shall notify the Attorney General, giving all facts necessary to enable him to furnish proper professional service in attending the examination or making the investigation, and the Attorney General shall provide for the service.
>
> 28 U.S.C. § 517. Interests of United States in pending suits: The Solicitor General, or any officer of the Department of Justice, may be sent by the Attorney General to any State or district in the United States to attend to the interests of the United States in a suit pending in a Court of the United States, or in a court of a State, or to attend to any other interest of the United States.
>
> 28 U.S.C. § 518. Conduct and argument of cases: (a) Except when the Attorney General in a particular case directs otherwise, the Attorney General and the Solicitor General shall conduct and argue suits and appeals in the Supreme Court and suits in the United States Claims Court or in the United States Court of Appeals for the Federal Circuit and in the Court of International Trade in which the United

> States is interested. (b) When the Attorney General considers it in the interests of the United States, he may personally conduct and argue any case in a court of the United States in which the United States is interested, or he may direct the Solicitor General or any officer of the Department of Justice to do so.

As is obvious, these statutes do not stand for the proposition asserted. Moreover, Farm Interests have conspicuously ignored 28 U.S.C. §§ 516 and 519, which reserve to the Attorney General, absent express congressional directive to the contrary, the authority to conduct and supervise all litigation to which the United States is a party.[5]

In an attempt to demonstrate that the Attorney General's authority to bring this action depends on the concurrence of other federal agencies, the Farm Interests refer to the Environmental Protection Agency's authority to implement and enforce the Clean Water Act, 33 U.S.C. § 1251 *et seq.* However, none of the United States' claims in this case are based on the Clean Water Act.

The League's filing fares no better. For example, in support of its contention that the Secretary of the Interior has exclusive authority to determine whether legal action should be taken to protect federal parks and

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[5] 28 U.S.C. § 516. Conduct of litigation reserved to Department of Justice: Except as otherwise authorized by law, the conduct of litigation in which the United States, an agency, or officer thereof is a party, or is interested, and securing evidence therefor, is reserved to officers of the Department of Justice, under the direction of the Attorney General.

28 U.S.C. § 519. Supervision of Litigation: Except as otherwise authorized by law, the Attorney General shall supervise all litigation to which the United States, an agency, or officer thereof is a party, and shall direct all United States attorneys, assistant United States attorneys, and special attorneys appointed under section 543 of this title in the discharge of their respective duties.

refuges, the League cites *Organized Fishermen of Florida v. Hodel*, 775 F.2d 1544 (11th Cir. 1985), *cert. denied*, 476 U.S. 1169 (1980), and *Kidd v. United States Dep't of Interior, Bureau of Land Management*, 756 F.2d 1410 (9th Cir. 1985). In fact, these cases, involving private challenges to regulatory decisions brought under the federal Administrative Procedures Act, 5 U.S.C. § 706 (2)(a), merely affirmed the Interior Department's broad discretion to *regulate* the *use and management of* federal lands. *See Organized Fishermen*, 755 F.2d at 1550 ("[t]he task of weighing the competing uses of federal property has been delegated by Congress to the Secretary of the Interior. Consequently, the Secretary has broad discretion in determining how best to protect public land resources."); *Kidd*, 756 F.2d at 1412 ("Congress' constitutional power over the proper administration and disposition of the public lands is without limitation."). The question of authority to initiate civil action to protect federal property was simply not at issue in these cases.

The League also relies on the following provision in the 1980 Department of Justice Appropriation Act:

> The Attorney General may, with the concurrence of any agency or department with primary enforcement responsibility for an environmental or natural resource law, investigate any violation of an environmental or natural resource law of the United States, and bring such actions as are necessary to enforce such laws.

Pub. L. No. 96-132, § 12, 93 Stat. 1040, 1048 (1979). The plain wording of this statute makes clear that it applies only to actions to enforce federal environmental laws. This action is based on state law and federal contract claims; no federal environmental or natural resource law is at issue in this case.

As a final example, the League cites *United States v. Solomon*, 563 F.2d 1123 (4th Cir. 1977), as holding

that "the [Department of Justice] does not have general discretionary authority to file civil actions within the purview of other federal agencies without the authorization and concurrence of those agencies." *League's Memorandum in Support of Motion for Court Inquiry,* December 13, 1991, at 4. In *Solomon,* the Fourth Circuit held that the United States as a whole lacked statutory authority and standing to sue to protect the constitutional rights of the mentally retarded. Significantly, the court distinguished the situation in which the United States sues to protect its property interests, in which case no explicit statutory authorization is required. 563 F.2d at 1126 (citing cases). The question of the authority of the United States as a whole to bring suit is, of course, a separate issue from the question of which federal agency is responsible for initiating suit. As to the latter question, the court expressly stated that "if the United States had authority to bring the suit, the Attorney General of the United States is the one to act as its counsel." *Id.* at 1124 (citing 28 U.S.C. §§ 516-519). *Solomon* not only lends no support to the League's argument, but indeed bears no resemblance to the characterization of its holding advanced by the League.

Although the Farm Interests' and the League's reliance on inapplicable authority is enough to warrant a conclusion that their challenge to the Attorney General's authority is without legal foundation, the issue of the concurrence of other federal agencies in this action is, in any event, a red herring.

The cooperation of numerous federal resource agencies in this litigation is evident from the United States' witness list, which includes, among others, personnel from the National Park Service, Fish and Wildlife Service, Environmental Protection Agency, Soil Conservation Service, and Army Corp of Engineers. *United States' Revised Designation of Expert Witnesses,* November 19, 1990. With respect to the Department of the Interior, Assistant

Interior Secretary Constance Harriman was quoted in a press article dated November 14, 1990, as stating: "We're pursuing an aggressive litigation strategy. What's at risk is a precious national park—a world heritage site—and an important wildlife refuge. [The damage sustained] is as bad as you can get. We've got to have relief." *Miami Herald*, November 14, 1990. (Exhibit 2 of *United States' Opposition to Defendant-Intervenor's Motion for Court Inquiry*, January 27, 1992). Further, when the settlement reached in this case was announced, the Secretary of the Interior, Manuel Lujan, issued a press release hailing the settlement as a "major step toward solving the water quality problems which threaten the park and the refuge" and as "the beginning of a new era of partnership designated to meet the goal of responsible stewardship of our public lands." (Exhibit 3 of *United States' Opposition to Defendant-Intervenor's Motion for Court Inquiry*).

While it may or may not be true that, as the Farm Interests and the League contend, the concurrence of other federal agencies occurred only after the suit was filed, this point is irrelevant in light of the Farm Interests' and the League's failure to demonstrate that this concurrence was ever needed in the first place.

Having been referred to no authority which suggests that the Attorney General lacks the authority to pursue and settle the claims in this case, the Court finds this argument to be without merit.

D. Infringement of Federal Agency Discretion

The Farm Interests claim that the Agreement illegally infringes upon the discretionary authority of federal agencies by requiring these agencies to defend the Agreement against outside challenges, by requiring their assistance in research and monitoring, and by requiring the Army Corp of Engineers (the "Corps") to modify its regulation

of the Central and Southern Florida Project (the "Project") in support of the Agreement's objectives.[6]

A similar argument was addressed in *Gorsuch*, 718 F.2d at 1127-29. In *Gorsuch*, a group of industries challenged a consent decree which established certain procedures and criteria to be employed by the Environmental Protection Agency ("EPA") in promulgating regulations under the Clean Water Act. In rejecting the industries' argument that the decree impermissibly restricted the EPA's discretion by prescribing the method to be used by the agency in developing its regulations, the appellate court emphasized that the terms of the decree were shaped, and voluntarily agreed to, by the EPA:

> The Decree here was largely the work of the EPA and the other parties to these suits, not the district

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[6] The Farm Interests cite other terms of the Agreement which purportedly restrict federal agency discretion, e.g., the water quality levels and limits established for the Park and Refuge, the conversion of farmland to STAs, and funding for research and monitoring.

With respect to the phosphorous concentration levels and limits for the Park and Refuge and the construction of STAs on farmland, no federal agency discretion is implicated because these measures are to be accomplished by the state agencies pursuant to their own regulatory authority and responsibilities. *Compare Citizens for a Better Environment v. Gorsuch*, 718 F.2d 1117 (D.C. Cir. 1983), *cert. denied*, 467 U.S. 1219 (1984), *discussed infra*. Were it otherwise, resort to the state administrative process would be unnecessary. If the Farm Interests mean to suggest that the United States cannot allow itself to be bound by the terms of the Agreement, this argument fails of its own effect, which would be to invalidate every decree and agreement, including criminal plea bargains, entered into by the United States.

As far as funding is concerned, the Agreement imposes no funding obligations on any federal agency. The only reference to federal funding in the Agreement is found in ¶ 11.F, which provides, *inter alia*, that funds available under the Clean Water Act "can be granted" to the state agencies for approved monitoring programs. This is an affirmation, not a restriction, of the Environmental Protection Agency's funding authority under the Clean Water Act.

> court; manifestly, the requirements imposed by the Decree do not represent judicial intrusion into the Agency's affairs to the same extent they would if the Decree were 'a creature of judicial cloth.'

Id. at 1128 (citation omitted). Because the EPA had consented to the decree, the situation in *Gorsuch* was distinguishable from cases in which agencies were ordered, against their will, to take action otherwise committed to their discretion. *See, e.g., National Ass'n of Postal Supervisors v. United States Postal Serv.*, 602 F.2d 420 (D.C. Cir. 1979) (district court interfered with Postal Service's broad discretion over management affairs in ordering the Service to maintain specific salary differential between management personnel and rank-and-file employees).

In this case, the Agreement before the Court, to be entered as a consent decree, is arguably less intrusive of federal agency discretion than the decree in *Gorsuch*. Whereas the federal agency in *Gorsuch* was in a defensive position, the United States initiated and aggressively pursued this action; any commitments it has made are in furtherance of its own independently-sought objectives. To hold that the various federal agencies which have participated in this suit cannot commit themselves to undertake action in support of an outcome which they affirmatively seek, i.e., restoration of the Everglades, is itself an infringement of their discretion to settle this lawsuit in the manner they best see fit.

Since any commitments embodied in the Agreement come with the endorsement and at the urging of the United States, the Agreement does not impermissibly infringe upon the discretion of the federal agencies involved.

E. The Flood Control Act

Defendant-intervenors contend that the Agreement, by establishing new water quality and quantity standards ap-

plicable to the Project, imposes immediate and significant modifications to the Project which elevate environmental considerations over the Project's primary purposes of flood control, reclamation, irrigation, and water supply. Such modifications, it is noted, require prior congressional approval under the Flood Control Act, 33 U.S.C. § 701, *et seq.* The United States' position is that the Agreement is entirely consistent with the broad aims of the Project, which include protection of fish and wildlife resources in addition to flood control and other stated purposes. *See generally Environmental Defense Fund v. Alexander,* 467 F. Supp. 885, 899-902, 908-10 (N.D. Miss. 1979) (discussing the Corps' discretionary authority to make post-authorization modifications to projects which do not materially alter authorized project purposes); *Creppel v. Army Corps of Engineers,* 670 F.2d 564, 572-73 (5th Cir. 1982) (same).

Although the position of both parties seems to suggest that a comparison of the terms of the Agreement with the Project's purposes is in order, the Court finds this task unnecessary since the Agreement does not mandate any specific or concrete modification to the Project such as would trigger the requirement of congressional approval.

The Corps' duties under the Agreement are set forth in ¶ 15:

> The Corps shall apply to DER for stormwater management permit(s) . . . for the operation of S-10, S-11, and S-12 water control structures, and for the construction and operation of new structures which may affect the Park or Refuge, and shall comply with reasonable permit terms and conditions relating to the abatement of water quality problems addressed in the Agreement. For existing structures S-10, S-11, S-12, the Corps shall apply on or before October 1, 1991. The DER anticipates that stormwater management permits for these existing structures may

> include monitoring, adjustments to regulatory schedules and participation in research consistent with this Agreement. . . . The Corps agrees to cooperate in the modification of its regulation of the [Project] in order to support the objectives set forth in this Agreement. New structures to be designed and constructed by the Corps shall be designed and constructed in a manner consistent with this Agreement.

In complying with these terms, the Corps may very well modify certain aspects of the Project, but Paragraph 15 clearly does not embody any specific or definite plan for modification of the Project. Hence, any alterations to the Project are, at this stage, purely conjectural and hypothetical. More fundamentally, because the Agreement itself contains no concrete proposal for modifications to the Project, the Court's approval of the Agreement does not implicate the Flood Control Act for the very reason that the Court cannot be approving or requiring what is not in the Agreement. Whether the Corps' implementation of its part of the Agreement will result in specific plans to alter the Project is an issue which need not and should not be resolved at this juncture. For present purposes, it is sufficient that the Agreement itself imposes no such modifications and, as such, does not require congressional authorization.

G. NEPA

NEPA requires federal agencies to submit an environmental impact statement ("EIS") before undertaking "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). The purpose of the EIS requirement, and NEPA as a whole, is to inject environmental considerations into the decisionmaking processes of federal agencies by forcing agencies to take a "hard look" at the environmental consequences of their actions. *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350 (1989) (citation

omitted); *Weinberger v. Catholic Action of Hawaii/Peace Education Project,* 454 U.S. 139, 143 (1981).

There is no question but that the remedial measures contemplated by the Agreement will significantly affect the environment; that is the whole purpose of the Agreement. Further, the fact that these measures are intended to benefit the environment does not necessarily render them beyond the scope of NEPA's requirements. As the Fifth Circuit has observed, "The proper question is not the intent behind the actions, but the significance of the new environmental impacts . . . NEPA is concerned with all significant environmental effects, not merely adverse ones." *Environmental Defense Fund v. Marsh,* 651 F.2d 983, 993 (5th Cir. Unit A, July 13, 1981)[7] (citation omitted). *Accord National Wildlife Federation v. Marsh,* 721 F.2d 767, 782-83 (11th Cir. 1983). In a similar vein, the Council on Environmental Quality ("CEQ"), which is charged with developing guidelines implementing NEPA's provisions, includes beneficial impacts in its definition of "significant effects" on the environment. 40 C.F.R. § 1508.27(b)(1). While the courts and the CEQ have not clearly articulated the purpose served by requiring an EIS for actions intended to benefit the environment, application of NEPA's mandate to such actions may stem from an implicit recognition that even the most well-intentioned environmental project can have unintended negative effects.

NEPA, however, applies only to "federal" actions. Accordingly, the critical questions before this Court are whether the Agreement's remedial measures constitute federal action and, if so, whether implementation of the Agreement is precluded pending preparation of an EIS.[8]

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[7] Decisions of the former Fifth Circuit rendered prior to October 1, 1981 are binding on this court. *Bonner v. City of Prichard,* 661 F.2d 1206 (11th Cir. 1981) (en banc).

[8] The Justice Department's internal regulations exclude the submission of consent or settlement agreements from its definition of

As regards the first issue, the fact that the actions designed to restore the Everglades are to be undertaken by the state agencies is not dispositive. The case law is quite clear that federal involvement in state or private activity may be sufficient to federalize the activity for purposes of NEPA.

Cases in which courts have found major federal action in otherwise nonfederal projects generally involve discretionary decisionmaking by federal agencies which permit or enable nonfederal actors to undertake activity affecting the environment. Typical examples include situations in which federal approval—usually in the form of a lease, permit, or license—is required, or where substantial federal funding is involved. *See, e.g., Maryland Conservation Council, Inc. v. Gilchrist,* 808 F.2d 1039, 1042 (4th Cir.1986) (county highway project involved federal action inasmuch as county needed a permit from the Army Corps to dredge a wetlands and highway crossed a state park purchased with federal funds, thereby requiring the Interior Secretary's approval for conversion of the park to other than recreational use); *Foundation on Economic Trends v. Heckler,* 756 F.2d 143, 152-54 (D.C. Cir. 1985) (enjoining university genetic experiment approved and funded by the National Institutes of Health without compliance with NEPA; *Homeowners Emergency Life Protection Comm. v. Lynn,* 541 F.2d 814, 817 (9th Cir. 1976) (per curiam) (grant of federal funds transformed dam and reservoir project into a federal-city partnership, rendering project a major federal action); *Davis v. Morton,* 469 F.2d 593, 596 (10th Cir. 1972) (Interior Secretary required to file an EIS prior to approving lease of Indian lands to private developer); *Greenpeace U.S.A. v. Evans,* 688 F. Supp. 579 (W.D. Wash. 1987) (federal agency's granting of permit allowing scientists to collect

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"major federal action." 28 C.F.R. § 61.4. This rule, however, is not applicable because defendant-intervenors' NEPA argument is not directed toward the act of submitting the Agreement, but rather at the specific remedial actions set forth within the Agreement.

skin and blubber samples from killer whales was subject to NEPA's requirement of EIS or preliminary environmental assessment). Other examples involve the provision of federal services or non-financial assistance to a non-federal project. *See Sierra Club v. Hodel*, 544 F.2d 1036, 1044 (9th Cir. 1976) (by entering into contract to supply power and construct transmission line to ALCOA plant, federal agency so federalized the project that it became major federal action); *Scientists' Inst. for Public Information, Inc. v. Atomic Energy Comm'n*, 481 F.2d 1079 (D.C. Cir. 1973) (Atomic Energy Commission's development of technology enabling utility companies to construct nuclear power plants required an EIS).

Although each of the above cases highlights the presence of a federal decision which in some manner "enables" another to take action impacting upon the environment, the common theme underlying findings of federal action is the existence of federal responsibility for the activity in question. *See* CEQ regulations, 40 C.F.R. § 1508.18, defining "major federal action" as including effects "which are potentially subject to federal control and responsibility." Such responsibility may be found where a federal agency wields significant influence over a nonfederal project or where, even absent such influence, federal participation is nonetheless substantial. *See Atlanta Coalition on Transp. Crisis, Inc. v. Atlanta Regional Comm'n*, 599 F.2d 1333, 1347 (5th Cir. 1979) (framing the issue as "whether there is sufficient federal control over, responsibility for, or involvement with an action to require preparation of an EIS"). A case which illustrates this larger theme is *Scottsdale Mall v. Indiana*, 549 F.2d 484 (7th Cir. 1977), *cert. denied*, 434 U.S. 1008 (1978). *Scottsdale Mall* involved a highway construction project undertaken by the State of Indiana, which initially received federal funding for the project but subsequently withdrew from federal funding consideration in order to avoid compliance with NEPA. The court nonetheless required preparation of an EIS. Although finding that

Indiana's receipt of early federal approval and financial aid rendered its highway project federal in character, despite its subsequent withdrawal from the funding program, the court also found "major federal action" in the federal government's extensive involvement in the project's planning. The record revealed federal participation in the programming, location, design, preliminary engineering, and right of way acquisition for the project. *Id.* at 489. Such extensive federal involvement was sufficient to federalize the state's highway, thus triggering the need for an EIS.

Application of the concept of federal "responsibility" to the case at hand yields the inevitable conclusion that the Everglades restoration project contemplated by the Agreement constitutes major federal action. The United States' responsibility for the Agreement's remedial measures is evident from the fact that these provisions were arrived at in consultation and negotiation with the United States. Through the negotiating process, the United States no doubt exercised considerable influence over determination of the precise interim and long-term phosphorous concentration limits established for the Park and Refuge, the interim and long-term target reductions in phosphorous loads from the EAA, and the size and location of the various STAs, all of which will surely have a significant impact on the environment.[9] Further, the United States will continue to exert control through the Agreement's dispute resolution mechanism. Pursuant to this provision, the state agencies are obligated to seek the approval of the United States before deviating from the terms of the Agreement. The United States thus not

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[9] Although the United States' role in determining the size and location of the STAs implicates NEPA's requirements, the acquisition of land on which the STAs are to be constructed does not. It is the STAs, and not the mere acquisition of land, that affect the environment. *See City of Oak Creek v. Milwaukee Metro. Sewerage Dist.*, 576 F. Supp. 482, 488-90 (E.D. Wis. 1983) (holding NEPA inapplicable to site-acquisition activities).

only had the power to influence the initial determination of the specific standards and measures affecting the environment, but also has the continuing power to set new or different standards by consenting to such changes. This is the kind of discretionary authority to approve or disapprove of actions affecting the environment that is at the very heart what constitutes "major federal action." In addition to this more substantive influence, the United States will cooperate and participate in the Agreement's implementation by assisting the state agencies in research and monitoring as well as in their efforts in the state administrative process.[10] Given the extent of the United States' role both in shaping the Agreement and in its implementation, the Court finds that the Agreement's remedial measures constitute major federal action and will accordingly require preparation of an EIS.

The Court will not, however, require an EIS as a condition to its approval or the parties' implementation of the Agreement. Though mindful that an EIS is supposed to precede an agency's decision to move forward on action which affects the environment, the Court is no less cognizant of NEPA's original purpose, which is to promote preservation and enhancement of the environment. *See* 42 U.S.C. § 4331. Here, the United States is attempting to protect and save the Everglades from further deterioration, thus fulfilling NEPA's purpose. Defendant-intervenors, moreover, have alleged no harm or even possible harm to the environment which would occur as a result of the restoration project. Rather, they are trying to use an environmental law as a means of stalling an environmentally protective measure.

The irony of the situation confronting this Court is similar to that faced by the Sixth Circuit in *Pacific Legal*

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[10] *Agreement* ¶¶ 13.B, 17, 18. *See also DER's and District's Reply Brief*, at 32, describing the Agreement as "a new spirit of cooperation between the state and federal governmental agencies who have bound themselves to work together in a cooperative effort to preserve and protect the Everglades . . ."

Foundation v. Andrus, 657 F.2d 829 (6th Cir. 1981). There, a legal foundation and several residents of the State of Tennessee argued that the Secretary of the Interior violated NEPA by failing to file an EIS prior to listing several species of mussels as endangered under the Endangered Species Act. The designation of the mussels as endangered species had necessitated a halt in construction of a dam. Although the court, in rejecting the NEPA claim, rested its holding on a finding of statutory conflict between NEPA and the Endangered Species Act, it also made a pertinent observation about the use of NEPA as a device to frustrate actions intended to benefit the environment:

> The Secretary, by listing species, is working to preserve the environment and prevent the irretrievable loss of a natural resource. The Secretary thereby enhances the ability to learn about ecosystems and acts as a responsible trustee of the environment. One of the rationales for exempting the actions of the EPA under the Clean Air Act from NEPA was that the EPA was working to preserve and enhance the environment and thus served the purposes of NEPA. To require EPA to file an impact statement would only hinder its efforts at attaining the goal of improving the environment.
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> . . . This Court is reluctant to make NEPA more of an obstructionist tactic to prevent environment-enhancing action than it may already have become.

Id. at 837-38 (footnote omitted).[11]

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[11] The court's mention of the EPA's exemption from NEPA's provisions is a reference to the "functional equivalent" test, a judicially created doctrine which exempts from NEPA's requirements actions of environmental agencies whose organic legislation mandates specific procedures for consideration of the environment that supply the "functional equivalent" of an impact statement. *See Alabama ex rel. Siegelman v. EPA*, 911 F.2d 499, 504-05 (11th Cir. 1990); *Wyoming v. Hathaway*, 525 F.2d 66, 72-73 (10th Cir. 1975); *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 380

Like the Sixth Circuit, this Court also declines to permit NEPA to be used as a litigation tactic to delay action intended to prevent "the irretrievable loss of a natural resource"—in this case, a resource with the unfortunate distinction as the most threatened park in the National Park system. To allow the Everglades to slowly strangle while a time-consuming EIS is being prepared would be inconsistent with NEPA's intent. "[A]n action which seeks to protect the environment from further deterioration deserves refuge from . . . undue delay." *United States v. South Florida Water Management Dist.*, 922 F.2d at 712 (quoting *Manasota-88 v. Tidwell*, 896 F.2d 1318, 1323 (11th Cir. 1990)).

Finally, the Court notes that an EIS will not be useless. The restoration project spans a period of about eleven years, with interim concentration levels not expected to be reached until the year 1997 and long-term concentration levels set for the year 2002. It is therefore likely that an EIS will have been completed prior to occurrence of at least some of the project's environmental effects. If actions affecting the environment occur prior to completion of an EIS, the EIS will nevertheless serve the useful function of allowing the agencies to determine, at a much earlier date than would be the case if there were no impact statement, whether the effects are as

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(D.C. Cir. 1973), *cert. denied*, 417 U.S. 921 (1974); *Environmental Defense Fund v. EPA*, 489 F.2d 1247, 1256 (D.C. Cir. 1973); *Buckeye Power, Inc. v. EPA*, 481 F.2d 162, 174 (6th Cir. 1973); *Appalacian Power Co. v. EPA*, 477 F.2d 495, 508 (4th Cir. 1973).

In this case, the "functional equivalent" doctrine is not available to the United States because the Justice Department is not an environmental agency and is not operating under any enabling legislation which would provide the functional equivalent of an EIS. *See Texas Comm. on Natural Resources v. Bergland*, 573 F.2d 201, 208 (5th Cir.) (declining to apply the functional equivalent exception to Forest Service's clearcutting, stating that the doctrine is generally limited to agencies whose sole responsibility is to protect the environment), *cert. denied*, 439 U.S. 966 (1978).

anticipated and, if not, whether any corrective measures are in order. This decision, of course, rests entirely with the responsible agencies involved. NEPA mandates a process, not a result. *Methow Valley*, 490 U.S. at 350.

The Court recognizes that its decision to allow the Everglades project to proceed while simultaneously requiring an EIS is somewhat unusual, the typical remedy for a NEPA violation being maintenance of the status quo pending an environmental assessment or preparation of an EIS. It is the Court's view, however, that under the circumstances presented, the result reached herein "strike[s] a workable balance between some of the advantages and disadvantages of full application of NEPA." *Portland Cement*, 486 F.2d at 386.[12]

III. CONCLUSION

The Court finds the Agreement to be fair, reasonable, and consistent with the public interest. This conclusion arises from the fundamental fact that the Agreement does no more than set in motion a process which itself is eminently fair and reasonable. In essence, the Agreement effects a transfer of these proceedings to a state administrative forum; this is precisely the result which the Farm Interests, at least, have consistently sought. Though defendant-intervenors would prefer that the Court relinquish its continuing jurisdiction over this case by leaving the ultimate determination of the United States' rights

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[12] The Court is aware of no case in which an action to restore an environmental resource was enjoined due to non-compliance with NEPA. The Eleventh and Fifth Circuit cases referred to at the outset, in which it was stated that NEPA is also concerned with beneficial impacts, involved proposals to mitigate a project's adverse environmental effects. *National Wildlife Federation*, 721 F.2d at 782-84; *Environmental Defense Fund*, 651 F.2d at 993. Because the mitigation plans were adopted to allay environmental concerns about a project's potential negative effect on the environment, it made sense to enjoin further project development until the beneficial or remedial effects of the plans were clearly established in an EIS.

and remedies to the state administrative process, the Court declines to do so. The United States, having the right to be in this Court, has the right to return to this Court if it is not satisfied with its remedies in the administrative process.

The important point is that the Agreement's remedial terms cannot take effect without first being tested by defendant-intervenors and subject to careful and searching scrutiny in the state administrative process and perhaps again in this Court. The Agreement's fairness, in short, lies in the fair and impartial administrative and judicial processes to which its terms are necessarily subject. The Cities and Farm Interests, as potentially affected parties, are entitled to no more and no less.

I have difficulty understanding the amount of time, effort, and litigation spawned by an understandable effort to seek the truth and, if the truth requires, take the steps necessary to save a precious resource. The time has come, indeed, has passed, when the admitted problems facing the Everglades must be addressed. And yet the solutions must be the product of a meaningful search for the scientific truth. The original parties to this litigation conclude that they have found the answers or, at least, are aimed in the right direction. The Cities and the Farm Interests wish to participate in the finality of these conclusions and so they shall.

Lest there be any doubt from what has been said before in this Order, it is the Court's hope and expectation that the administrative process in which defendant-intervenors will be involved will be totally uninhibited by this Order and the Agreement to which it makes reference. If, ultimately, it is determined factually that procedures and methods other than those agreed to by the original parties herein should be undertaken, then it will lie with those parties to either accept those conclusions or seek further relief from the Court.

The Court accordingly approves the Agreement and ORDERS AND ADJUDGES as follows:

1. The Court has jurisdiction over this action. The Agreement is approved by the Court and by reference made a part of this Order. The parties to this Agreement are ordered to comply with its terms.

2. The Court shall retain jurisdiction over this matter for the purpose of enabling any of the Parties to the Agreement to apply to the Court at any time for such further orders or directives as may be necessary or appropriate for enforcement or modification of the terms of the Agreement.

DONE AND ORDERED in chambers at Miami, Florida this 24th day of February, 1992.

/s/ William M. Hoeveler
WILLIAM M. HOEVELER
United States District Judge

cc: All counsel of record

APPENDIX G

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

Case No. 88-1886-CIV-HOEVELER

UNITED STATES OF AMERICA, *et al.*,
Plaintiffs,

vs.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT; TIMER E. POWERS, Interim Executive Director, South Florida Water Management District; FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION; and CAROL M. BROWNER, Secretary, Florida Department of Environmental Regulation, *et al.*,
Defendants.

SETTLEMENT AGREEMENT

WHEREAS the United States, the South Florida Water Management District and Timer E. Powers in his official capacity as Interim Executive Director of the South Florida Water Management District; and the Florida Department of Environmental Regulation and Carol M. Browner in her official capacity as Secretary of the Florida Department of Environmental Regulation, desire to restore, preserve and protect the unique flora and fauna of the Everglades National Park and the Arthur R. Marshall Loxahatchee National Wildlife Refuge, to maintain a cooperative relationship in accomplishing these goals, and to settle and resolve the disputes that have arisen between and among them without admitting or conceding liability;

THEREFORE, the United States, the South Florida Water Management District and Timer E. Powers, and

the Florida Department of Environmental Regulation and Carol M. Browner mutually stipulate and agree as follows:

DEFINITIONS

1. The following definitions shall apply to this Settlement Agreement ("Agreement") and the attached Appendices:

A. "Class III water quality standards" shall have the meaning set forth in Florida Administrative Code Chapter 17-302.

B. "The DER" shall mean the Florida Department of Environmental Regulation.

C. "The District" shall mean the South Florida Water Management District.

D. "The Everglades Agricultural Area" ("EAA") shall mean that area including, but not limited to, the drainage basins of S-2, S-3, S-5A, S-6, S-7, S-8, and S-150, as further defined in the SWIM Plan or permits to be developed pursuant to paragraph 13.

E. "The Everglades Protection Area" ("EPA") means Water Conservation Areas 1, 2A, 2B, 3A, 3B, the Arthur R. Marshall Loxahatchee National Wildlife Refuge, and the Everglades National Park.

F. "Imbalance in natural populations of aquatic flora and fauna" and "imbalance of flora and fauna" shall have the meaning in Florida Administrative Code Rule 17-302.560: "Class III Waters—Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife. (19) Nutrients: In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." Imbalance includes situations when nutrient additions result in nuisance species as defined in Florida Administrative Code Rule 17-302.200(14), or when nutrient additions result in violation of other

standards contained in Chapter 17-302 as defined in Rule 17-302.510(3)(j). In the case of the Park and Refuge, imbalance specifically shall include nutrient additions that result in, but are not limited to, replacement of native periphyton algal species by more pollution-tolerant algal species, loss of the native periphyton community or, in advanced stages of nutrient pollution, native sawgrass and wet prairie communities giving way to dense cattail stands or other nutrient-altered ecosystems, which impair or destroy the ability of the ecosystem to serve as habitat and forage for higher trophic levels characteristic of the Everglades. Numerical interpretation of imbalance shall specifically include an array of indices to measure sensitivity of the ecosystem to small changes in nutrients, such as nutrient cycling processes and the basic components of the Everglades ecosystem, including periphyton and other sensitive indicators of nutrient enrichment. The results of the Research and Monitoring Program will be used to determine numerically the undesirable level of nutrients that cause an imbalance.

G. "Interim concentration limits" for the Park shall mean the concentration limits to be measured at discharges to the Park and attained by July 1, 1997, as determined in Appendix A.

H. "Interim concentration levels" for the Refuge shall mean the geometric mean of concentration levels to be measured at 14 interior marsh stations and attained by July 1, 1997, as determined by Appendix B.

I. "Long-term concentration limits" for the Park shall mean the concentration limits to be measured at discharges to the Park and attained by July 1, 2002, as determined by Appendix A.

J. "Long-term concentration levels" for the Refuge shall mean the geometric mean of concentration

levels to be measured at 14 interior marsh stations and attained by July 1, 2002 as determined by Appendix B.

K. "Outstanding Florida Waters" ("OFWs") shall mean waters designated by the Florida Environmental Regulation Commission pursuant to Florida Administrative Code Rule 17-302.700.

L. "The Park" shall mean the Everglades National Park, including the Park expansion area, as defined in the Everglades National Park Expansion and Protection Act of 1989, P.L. 101-229.

M. "The Parties" shall mean the United States and the State Parties.

N. "The Refuge" shall mean the Arthur R. Marshall Loxahatchee National Wildlife Refuge.

O. "The State Parties" shall mean the South Florida Water Management District and Timer E. Powers, in his official capacity as Interim Executive Director, or his successors; and the Florida Department of Environmental Regulation and Carol M. Browner, in her official capacity as Secretary, or her successors.

P. "Stormwater Treatment Areas" ("STAs") shall mean the stormwater management systems that are to be designed, acquired, constructed and operated by the District in a manner primarily to provide nutrient removal pursuant to this Agreement. Use of the term "stormwater" in this Agreement shall not limit the source or nature of the water to be treated in the STAs in accordance with this Agreement, and shall include all water discharged to the EPA through the S-5A, S-6, S-7, S-8 and S-150 structures.

Q. "The SWIM Plan" shall mean the Surface Water Improvement and Management ("SWIM") Plan for the Everglades Protection Area as defined in the

Marjory Stoneman Douglas Everglades Protection Act of 1991, Chapter 91-80, Laws of Florida.

R. "Technical Oversight Committee" ("TOC") shall mean the committee established in paragraph 18 of this Agreement.

S. "The United States" shall mean the United States of America and its agencies, including but not limited to the United States Department of the Interior, the United States Environmental Protection Agency ("USEPA"), the United States Army Corps of Engineers ("The Corps"), and the United States Department of Agriculture.

T. "The Water Conservation Areas" ("WCAs") shall mean WCAs 1, 2A, 2B, 3A and 3B as described in District map dated September 1985.

SETTLEMENT OF CLAIMS

2. This Agreement settles all claims that the United States raises in the Second Amended Complaint, and all counterclaims to the Second Amended Complaint that the State Parties raise, in *United States et al. v. South Florida Water Management District et al.*, No. 88-1886-CIV Hoeveler (S.D. Fla.).

INTRODUCTION/BACKGROUND OF PROBLEM

3. The Parties agree that the Park and the Refuge are unique and irreplaceable natural resources. As the major remnants of the greatly diminished natural Everglades, the Park and the Refuge contain unmatched, world-renowned examples of biologically rich and sensitive ecosystems. The nutrient-lean (oligotrophic) condition of the aquatic ecosystems is one hallmark characteristic of the unspoiled Everglades that still exists in the Park, the Refuge and other parts of the Everglades. These ecosystems are changed by even slight increases in nutrient concentrations, particularly increases in the concentration of phosphorus.

A. At the present time, the ecological integrity and ultimately the survival of the Park and Refuge are threatened by the inflow of EAA drainage water containing excess nutrients. Indeed, the high levels of phosphorus in EAA discharges constitute the most immediate water quality concern facing the Everglades system. EAA drainage that flows directly into the Refuge contains average phosphorus concentrations ten to twenty times higher than background concentrations of phosphorus observed at interior marsh sites. Water from the EAA eventually flows into the Park through the WCAs. Thus, maintenance of state water quality standards within the WCAs is crucial to the ecology of the Park.

B. Excess phosphorus accumulates in the peat underlying the water, alters the activity of microorganisms in the water, and disturbs the natural species composition of the algal mat (periphyton) and other plant communities in the marsh. These disturbed communities deplete the marsh of oxygen, and, ultimately, result in native sawgrass and wet prairie communities being replaced by dense cattail stands or other nutrient-tolerant ecosystems. The ability of the ecosystem to serve as habitat and forage for the native wildlife is thereby greatly diminished or destroyed. These changes constitute imbalances in the natural populations of aquatic flora and fauna or indicators of such imbalances.

C. The Parties agree that surface water entering the Refuge, including water entering through the S-5A and S-6 pumping stations, contains nutrient levels that are causing imbalances in the natural populations of aquatic flora and fauna in violation of state water quality standards.

D. The Parties agree that surface water entering the Park from the WCAs contains excessive nutrients that are being accumulated in the soils and sediments downstream of one or more Park water delivery structures. Once these soils and sediments are loaded with excess phosphorus,

nuisance species that thrive on excess phosphorus are able to invade the marsh. The presence of these excessive nutrients is potentially harmful or injurious to animal and plant life in the Park. Accordingly, such nutrient-polluted water is, or is reasonably expected to be, a source of pollution in the Park.

E. The Parties agree that nutrient-polluted water threatens to devastate the ecosystems in the Park and Refuge. The Parties further agree that the actions set forth in this Agreement are necessary to halt or prevent imbalances in natural populations of aquatic flora and fauna and other water quality violations in the Park and Refuge.

COMMITMENT TO RESTORING AND MAINTAINING WATER QUALITY

4. In recognition of the serious and potentially devastating degradation threatening the Park and the Refuge as a result of nutrient-laden waters, and to further a process that resolves ongoing litigation, the Parties commit themselves to guarantee water quality and water quantity needed to preserve and restore the unique flora and fauna of the Park and the Refuge.

5. The State Parties shall take such action as is necessary so that waters delivered to the Park and the Refuge achieve state water quality standards, including Class III standards, by July 1, 2002. The State Parties commit:

A. To achieve interim phosphorus concentration limits and levels, as reflected in Appendices A and B, by July 1, 1997.

B. To achieve long-term phosphorus concentration limits and levels, as reflected in Appendices A and B, by July 1, 2002.

6. Compliance with the interim and long-term total phosphorus concentration limits and levels set forth in or established pursuant to this Agreement shall be deter-

mined in accordance with the methodologies and procedures set forth below, including the Appendices attached to this Agreement. If a conflict arises between the following summaries and the Appendices, the Appendices shall prevail.

TOTAL PHOSPHORUS CONCENTRATION LIMITS FOR THE PARK

7. The Parties agree that the interim and long-term total phosphorus concentration limits for the Park are as set forth in Appendix A.

A. By July 1, 1997, interim concentration limits for Shark River Slough must be met. The approximate annual flow-weighted concentration limit will vary based upon total annual flow, with a range of less than 14 ppb for a dry year to less than 9 ppb for a wet year.

B. By July 1, 2002, the long-term concentration limits must be met for the Shark River Slough, Taylor Slough and Coastal Basins. The long-term concentration limits represent the concentration levels delivered during the OFW baseline period of March 1, 1978 to March 1, 1979, adjusted for observed variations. The approximate long-term concentration limits for Shark River Slough also vary with flow, with a range of less than 13 ppb for a dry year to less than 8 ppb for a wet year. The long-term concentration limit for Taylor Slough (S-332 and S-175) and the Coastal basin (S-18C) is 11 ppb.

C. Compliance with these concentration limits is expected to provide a long-term average flow-weighted mean inflow concentration of approximately 8 ppb for the Shark River Slough Basin and 6 ppb for the Taylor Slough and Coastal Basins. Monitoring of biological responses in the Park will determine if these limits are sufficient to prevent an imbalance of flora and fauna; if not, these limits will be adjusted to prevent an imbalance of flora and fauna.

TOTAL PHOSPHORUS CONCENTRATION LEVELS AND DISCHARGE LIMITS FOR THE REFUGE

8. The Parties agree that the interim and long-term total phosphorus concentration levels for the Refuge are as set forth in Appendix B. Total phosphorus concentration levels for the Refuge were calculated from water quality data collected by the District from 1978 to 1983.

A. By July 1, 1997, phosphorus loads discharged from the EAA will be reduced by approximately 80% to the EPA and 85% to the Refuge as compared to mean levels measured from 1979 to 1988.

B. Interim concentration levels for the Refuge, which are effective July 1, 1997, are based on the relationship between phosphorus concentrations measured at the 14 interior marsh stations and water elevations measured at 3 gauges within the Refuge. Compliance with these concentration levels is intended to limit mean phosphorus concentrations in water samples collected monthly at 14 interior marsh stations to values between 8 and 22 ppb when water elevations in the Refuge are between 17.14 and 15.42 feet msl, respectively.

C. Inflows to the Refuge must result in compliance with Class III water quality criteria or long-term concentration levels, whichever are lower, by July 1, 2002, as set forth in Appendix B. Research and monitoring will be conducted under this Agreement to interpret what phosphorous concentration levels comply with Class III water quality criteria.

D. The STA and best management practices ("BMPs") programs are designed to limit Refuge inflow discharge concentrations to a long-term average of 50 ppb. DER will require compliance with a maximum annual discharge limit of 50 ppb for Refuge inflows if the interim or the lower of the

long-term marsh concentration levels or Class III nutrient criteria are not being met by the effective dates. By July 1, 2002, if the 50 ppb maximum annual inflow discharge limit is being met but the lower of the long-term marsh concentration levels or Class III nutrient criteria is being violated, DER will enforce more stringent inflow discharge limits.

WATER QUANTITY REQUIREMENTS

9. Quantity, distribution and timing of water flow to the Park and Refuge must be sufficient for maintaining and restoring the full abundance and diversity of the native floral and faunal communities throughout the Park and Refuge. The Parties shall take all actions within their authority necessary to provide adequate flows to meet the water quantity, distribution, and timing needs of the Park and the Refuge. The District shall implement mitigation measures to offset flow reductions to the EPA resulting from efforts to improve the water quality in the EPA. Additionally, the Parties through the TOC shall jointly develop specific elements of these actions as part of a basin-wide Everglades ecosystem restoration plan. Nothing in this Agreement shall limit or prejudice any rights of the Park or Refuge under State or Federal law to obtain greater or more specific water quantity.

IMPLEMENTATION OF STORMWATER TREATMENT AREAS

10. The District commits to purchase, design and construct STAs as set forth in Appendix C.

A. The primary strategy to remove nutrients from agricultural runoff is the construction and operation of STAs, which are large scale wetland treatment systems constructed by the District. These STAs will mainly receive stormwater directly from the primary agricultural drainage canals and process it for the removal of nutrients through intensive management.

Deliveries may be made to the STAs from Lake Okeechobee or other sources. These areas will be designed, operated and managed primarily to purify the water before it enters the WCAs, the Park and the Refuge. In addition, their size and location may allow significant improvement in the manner in which water is introduced into the natural areas. By allowing the reintroduction of sheet flow into tens of thousands of acres of Everglades, the completion of these projects has the potential for improving Everglades hydroperiod.

B. The District agrees to acquire the lands set forth in Table 1. Table 1 provides an estimate of the effective treatment acres of STAs. The design sizes and configurations of STAs are based on the need to achieve an interim outflow concentration of approximately 50 ppb at each STA outflow point. The Class III phosphorus criteria when interpreted by research will be implemented by July 1, 2002, if lower than the long-term concentration levels. The size of each STA is based on the assumption that the volume of flows experienced during the 1979 to 1988 base period from each tributary basin would be treated with no hydraulic bypass. These STA acreages (with future adjustments as may be required based upon performance as set forth in Appendix C) and the BMP regulatory program provide the control programs which are anticipated to meet both the interim and long-term Park and Refuge phosphorus concentration limits and levels. However, notwithstanding the implementation of these control programs, if the concentration limits and levels are violated, then the State Parties will implement additional remedies, such as any necessary expansion of STAs, more intensive management of STAs, a more stringent EAA regulatory program, or a combination of the above. The State Parties shall not implement more intensive management of the STAs as the sole additional remedy.

C. Table 1. STA Effective Acreage

Basin	STA	Approx. Total Acres to be Acquired	Approx. Effective Treatment Acres
S-5A	STA-1	12,500	11,800
S-6	STA-2	4,000	3,700
S-7	STA-3	5,270	4,950
S-8	STA-4	12,930	12,150
TOTAL:		34,700	32,600

D. The 11,800 acres of STA-1 includes 7,400 effective treatment area acres which will be constructed and in operation by July 1, 1997, and 4,400 effective treatment area acres which will be constructed and in operation by July 1, 2002, if the long-term phosphorus concentration levels for the Refuge are not met by July 1, 2000. Each of the four major drainage basins in the EAA will have a treatment system. They will be designed to treat all the flow from the EAA with respect to the 1979-1988 base period. If long-term concentration limits and levels are not met by July 1, 2002, additional acreage will be required as described in Appendix C.

RESEARCH AND MONITORING

11. The Parties agree to the research and monitoring program set forth in Appendix D.

A. Several aspects necessary to achieve compliance with this Agreement must be defined by additional research. The research objectives are to:

1. Numerically interpret the narrative Class III nutrient water quality criteria (i.e., the nutrient levels which cause an imbalance of flora and fauna in the units of the EPA); and

2. Assess current and continuing responses of the EPA to nutrient input levels resulting from

the efforts to achieve interim and long-term concentration limits and levels.

B. A key component of these research efforts is the development (including appropriate data collection) of models of phosphorus dynamics in the EPA. For example, one priority would be an understanding of the relationships between phosphorus input and water quality at the 14 interior marsh stations in the Refuge, including definition of the future role of recycling of previous excess phosphorus inputs.

C. Studies designed to test the response of key ecosystem components and processes to different phosphorus input rates are another important focus of the research program. An array of indices will be used to measure sensitivity of the ecosystem to small changes in nutrients. These will include nutrient cycling processes and the basic components of the Everglades ecosystem, such as periphyton, and other sensitive indicators of nutrient enrichment. These indices will be used to determine the criteria for compliance in the EPA with the Class III nutrient criteria under the terms of this Agreement.

D. Research on the performance of STAs and BMPs is also required to ensure achievement of the intent of this Agreement.

E. An intensive program of monitoring is required to track compliance with interim and long-term concentration limits and levels, as well as the response of Everglades flora and fauna to the phosphorus levels achieved. The monitoring program will also provide data for modeling research.

F. The State Parties shall be primarily responsible for the research and monitoring set forth in this Agreement, in the Marjory Stoneman Douglas Everglades Protection Act and in the Surface Water Im-

provement and Management Act, with support from the United States. The National Park Service, the US Fish and Wildlife Service, the USEPA and the Corps will assist in the research and monitoring as appropriate. For example, funds available under section 319 of the Clean Water Act can be granted to the State Parties by USEPA in support of approved monitoring programs to assess the effectiveness of BMPs and STAs. All aspects of the research and monitoring programs will be directed by the TOC.

REGULATORY PROGRAM

12. The State Parties agree to initiate a regulatory program as set forth in Appendix E.

A. The goal of the regulatory strategy is to reduce present total phosphorus loads from the EAA to each STA by at least 25%, by February 1996. An interim target reduction of 10% in total phosphorus load from the EAA will be required by February 1994. The District will adopt rules to implement the regulatory program by April 1992. The rules are scheduled to be effective in May 1992. At a minimum, by July 1993 the DER or the District shall require and issue permits under an appropriate permitting vehicle, regulating water quality for all dischargers in the EAA, in a manner consistent with the terms of this Agreement; or, if permits are not issued by that date, institute appropriate compliance and enforcement action, as provided in paragraph 14.

B. The regulatory program will require permits for the discharge of water from the internal drainage systems in the EAA. Applicants that demonstrate sufficient ability and authority may be eligible for a Master Permit for a defined geographic area. Applicants will be required to meet specified long-term phosphorus load allocations as described in Appendix E. Applicants will be required to institute a BMP Program designed to meet the applica-

ble interim and long-term phosphorus basin load allocation. Compliance with these basin load allocations should result in the interim and long-term (1996) target reduction of 10% and 25% respectively in total phosphorus load from the EAA, being achieved. Applicants will also be required to submit acceptable water quality monitoring plans designed to document compliance with annual load allocation, BMP implementation and operation, BMP effectiveness, and identification of high episodic phosphorus events.

C. EAA permittees will be required to submit quarterly and annual reports of water quality monitoring results to the District. Permittees will also be required to submit annual reports to the District summarizing BMP implementation and effectiveness.

D. Regulatory program enforcement will strive to identify critical problems before unacceptable loads occur. Compliance with total phosphorus load allocations will be determined by measuring flow and concentration at the applicant's property boundary, with appropriate adjustment for hydrologic variability with respect to the 10 year base period, such as an adjustment for rainfall considering that year's rainfall versus average annual rainfall over the 10-year base period.

E. Permittees exceeding the permitted areal phosphorus load allocation for February 1994 or 1996 shall be required to submit to the District a plan for monitoring on a continuous basis and a proposed compliance plan and schedule designed to achieve compliance within 6 months.

F. The District will review the permittee's plan and schedule. If they are acceptable, the District will amend the permit accordingly. If they are unacceptable, the District will take appropriate enforcement action as set forth in paragraph 14 or Appendix E.

IMPLEMENTATION AND ENFORCEMENT PROCEDURES

13. The State Parties shall use the full scope and authority of their planning, regulatory, permitting, enforcement and public works powers, to bring the waters in the Park and Refuge into compliance with the interim and long-term concentration limits and levels in this Agreement by July 1, 1997 and July 1, 2002 respectively. Without constituting a limitation on their ability to exercise this authority, the State Parties shall exercise such authority as follows:

A. The State Parties shall develop an overall plan to restore and protect the Park and the Refuge pursuant to the following schedule:

(1) The District shall develop a SWIM Plan, consistent with Appendices A through E, and approve it for presentation to DER pursuant to Section 373.456(1), F.S., by the October 1991 Governing Board meeting.

(2) DER shall submit to the District within 30 days after receipt of the approved SWIM Plan its determination of consistency with state water policy and the state comprehensive plan in accordance with Section 373.456(2), F.S.

(3) The District shall take final agency action in adopting the SWIM Plan by March 31, 1992.

(4) The District shall apply to DER for 5-year interim permits by October 1, 1991, pursuant to the provisions of Section 373.4592(6), F.S. The application shall be designed to achieve the interim concentration limits and levels as set forth in Appendices A and B. At a minimum, the application shall include the interim concentration limits and levels, the nutrient removal (STA) program, proposed regulatory program

and research and monitoring program, consistent with Appendices A through E. Prior to expiration, the District shall apply for renewal of the permits as provided in the Section 373.4592(6), F.S. to achieve the long-term concentration limits and levels set forth in Appendices A and B.

(5) The DER shall take final agency action on the permit applications on or before July 1, 1992; or, alternatively, initiate appropriate compliance and enforcement actions as set forth in paragraph 14 if permits are not issued by then.

(6) The District shall initiate acquisition for the STAs as set forth in the following table:

STA Acquisition Schedule

Basin	STA	Approx. Total Acres to be Acquired	Date Acquisition to be Initiated
S-5A	STA-1	12,500	October 1, 1991
S-6	STA-2	4,000	August 1, 1992
S-7	STA-3	5,270	August 1, 1992
S-8	STA-4	12,930	August 1, 1992

(7) The State Parties shall seek expedited resolution of any judicial or administrative proceedings with regard to implementation of their commitments in this Agreement in order to meet the schedules set forth in this Agreement.

B. The proper concentration limits and levels for total phosphorous in surface waters entering and within the Park and Refuge and nutrient removal acreage required to improve and protect water quality are based on the scientific and technical evidence developed by the Parties and set forth and referred to in the Appendices. In any administrative hearing on the SWIM Plan or permits, the State Parties shall support and defend the SWIM Plan and per-

mits consistent with Appendices A through E. The United States shall provide technical assistance to support the State Parties in accordance with paragraphs 17 and 18.

14. The State Parties acknowledge that they have the authority to initiate compliance and enforcement action as set forth below. This Agreement does not constitute a limitation on the ability of the State Parties to exercise such authority.

A. The DER acknowledges that it has the authority to require persons reasonably expected to be sources of pollution affecting the Park or Refuge to undertake action necessary to achieve and maintain compliance with water quality standards in the Park and Refuge. Such authority includes the following:

(1) Initiation of administrative or civil enforcement action against persons responsible for sources of pollution affecting the Park and Refuge to correct or eliminate the sources of pollution, and to seek civil penalties and recovery of damages for violations.

(2) Issuance, modification or revocation of permits for such persons.

B. The District acknowledges that it has the statutory authority to require persons constructing, altering, operating or maintaining surface water management or stormwater management systems, using or withdrawing water, or connecting to or making use of works of the District, to undertake action necessary to achieve and maintain compliance with water quality standards in the Park and Refuge. Such authority includes the following:

(1) Initiation of administrative or civil enforcement action against persons responsible for the activities described above to correct or eliminate

the sources of pollution and to seek civil penalties and recovery of damages for violations.

(2) Issuance, modification or revocation of permits for such persons.

C. In the event that the schedule set forth in this Agreement for achieving and maintaining timely compliance with water quality standards is not met, the State Parties commit to exercise their authority as set forth in this paragraph to initiate appropriate action to achieve and maintain compliance with water quality standards.

15. The Corps shall apply to DER for stormwater management permit(s) pursuant to Section 373.416, F.S., for the operation of S-10, S-11, and S-12 water control structures, and for the construction and operation of new structures which may affect the Park or Refuge, and shall comply with reasonable permit terms and conditions relating to the abatement of the water quality problems addressed in this Agreement. For existing structures S-10, S-11, S-12, the Corps shall apply on or before October 1, 1991. The DER anticipates that stormwater management permits for these existing structures may include monitoring, adjustments to regulatory schedules and participation in research consistent with this Agreement. The DER shall not require the Corps to construct any STAs as a part of the operating permit(s) to be issued for the S-10, S-11, and S-12 water control structures. The Corps agrees to cooperate in the modification of its regulation of the Central and Southern Florida Project in order to support the objectives set forth in this Agreement. New structures to be designed and constructed by the Corps shall be designed and constructed in a manner consistent with this Agreement. Nothing in this Agreement shall alter or affect the obligations of the parties to the Memorandum of Understanding between the Corps and DER dated December 4, 1979, as amended.

Future projects designed by the United States which affect the Park or Refuge shall consider the environmental and water quality commitments set forth in this Agreement.

PRESERVATION AND PROTECTION OF THE RIGHTS OF THE MICCOSUKEE AND SEMINOLE TRIBES

16. Nothing in this Agreement shall diminish or alter the governmental authority and powers of the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida, or diminish or alter the rights of those tribes, including rights under any tribal agreement with any Party to this Agreement. No land of either the Miccosukee Tribe of Indians of Florida or the Seminole Tribe of Florida shall be used for STAs to be established under Appendix C of this Agreement without the consent of the Tribe involved.

MUTUAL COOPERATION

17. The Parties agree that mutual cooperation is essential to implementing the actions necessary to achieve the commitments set forth in this Agreement. To accomplish this the Parties will provide assistance to each other in their responsibilities under this Agreement, including but not limited to the sharing of information, defense of this Agreement against challenges by others, support for the acquisition of funds to assist in the accomplishment of these commitments, and the provision of technical and scientific assistance to any party seeking to defend in legal proceedings any of the commitments in this Agreement.

TECHNICAL OVERSIGHT COMMITTEE (TOC)

18. Each of the persons designated in paragraph 19A shall appoint one technical representative, and one alternate to the TOC. The TOC will plan, review and recommend all research, monitoring and compliance, conducted

pursuant to the terms of this agreement, and will consider technical advice and assistance for each activity as necessary from the appropriate agencies and from other state and federal agencies and consultants. The TOC will make technically based recommendations by consensus approach; when a technically based recommendation cannot be reached by consensus, a 4 out of 5 majority, the impasse will be reported back to the Parties for mediation as provided for in paragraph 19.

SETTLEMENT OF DISPUTES

19. The Parties desire and agree to use their best efforts to work cooperatively toward achieving the restoration and maintenance of water quality in the Everglades. The Parties shall endeavor at all times to maintain a spirit of cooperation and to settle disagreements through good faith negotiations between or among themselves.

A. The following persons or their designees are responsible for notifying their respective counterparts of the initiation of the procedures set forth in this paragraph:

(1) Superintendent of the Park;

(2) Manager of the Refuge;

(3) Secretary of DER;

(4) Executive Director of the District; and

(5) District Engineer, Jacksonville District, U.S. Army Corps of Engineers.

B. The Party seeking to utilize these provisions must notify all other Parties, counsel of record for the United States, and the general counsels for the State Parties, of the initiation of these procedures.

C. The Party seeking relief shall first notify the other Parties to this Agreement in writing by certified mail, return receipt. Representatives of the Par-

ties shall arrange to meet within 15 days of receipt of such notice for the purpose of consulting and resolving the concern.

D. If after meeting the Parties cannot resolve the concerns within a reasonable time, any Party may require mediation. The Parties shall attempt to agree upon a single mediator. Alternatively, the State Parties shall designate one mediator and the United States shall designate the other. Any efforts for mediation shall conclude within 60 days of the receipt of the certified letter unless the Parties otherwise agree in writing.

E. If consultation or mediation has failed to resolve the concerns, any Party shall be entitled to apply to the Court for judicial resolution of the disagreement. Such application shall be by motion setting forth the matter in disagreement and the relief being requested to address the disagreement. No Party shall be entitled to file such a motion, or otherwise to seek judicial resolution of the disagreement, unless and until the procedures set forth above have been tried and exhausted.

F. Resort to the procedures contained in this paragraph shall not extend or postpone any Party's obligations under this Agreement.

LITIGATION COSTS

20. Each party shall bear its own costs and fees, and each party waives any right to seek penalties and damages, for all proceedings in this case up to and including entry of an order approving and incorporating this Agreement as provided in paragraph 22. Nothing in this paragraph shall constitute a limitation on any party to seek appropriate relief in conjunction with any action to enforce any of the terms of this Agreement.

INTEGRATION CLAUSE

21. This Agreement incorporates the entire agreement between the District, DER and the United States with respect to the claims brought by the United States and the counterclaims brought by the State Parties. No part of this Agreement shall be binding on the Parties unless it is approved in its entirety by Court order, unless the Parties agree otherwise in writing.

JURISDICTION

22. The Parties acknowledge that the Court has jurisdiction over this action, but all Parties reserve their rights to raise jurisdictional issues in any other actions. The Parties agree to the entry of the proposed order attached hereto as Exhibit 1 by which the Court shall retain jurisdiction over this action for the purpose of enabling any of the Parties to this Agreement to apply to the Court at any time for such further orders or directives as may be necessary or appropriate for enforcement or modification of this Agreement.

FORCE MAJEURE

23. The Parties recognize that notwithstanding their compliance with the commitments contained herein, events beyond their control may prevent or delay one or more commitments. Such events may include natural disasters as well as unavoidable legal barriers or restraints, including those arising from the actions of persons not Parties to this Agreement. Force majeure shall not include increased costs of activities covered by this Agreement, whether or not anticipated at the time such activities were initiated. Force majeure shall not continue beyond the circumstances and conditions that prevent timely performance, and shall not apply if alternative means of compliance are available. If a Party is of the opinion that such an event has occurred, that Party has an affirmative obligation to initiate immediately the dispute resolution provision set forth in paragraph 19, as

a prerequisite to seeking relief from that Party's commitments. The Party claiming force majeure shall have the burden of proof.

DATED this 26th day of July, 1991.

Secretary
Florida Department of
Environmental Regulation

/s/ Carol M. Browner
CAROL M. BROWNER

Chairman of Governing
Board
South Florida Water
Management District

/s/ Allan Milledge
ALLAN MILLEDGE

Interim Executive Director
South Florida Water
Management District

/s/ Timer E. Powers
TIMER E. POWERS

Acting Assistant Attorney
General
Environmental and Natural
Resources Division

/s/ Barry M. Hartman
BARRY M. HARTMAN

United States Attorney
Souther District of Florida

/s/ Dexter W. Lehtinen
DEXTER W. LEHTINEN

EXH. 1 TO SETTLEMENT AGREEMENT

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

Case No. 88-1886-CIV-HOEVELER

UNITED STATES OF AMERICA, *et al.*,
Plaintiffs,

vs.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT; TIMER E. POWERS, Interim Executive Director, South Florida Water Management District; FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION; and CAROL M. BROWNER, Secretary, Florida Department of Environmental Regulation, et al.,
Defendants.

ORDER

This matter is before me upon the joint motion of the United States, the Florida Department of Environmental Regulation and Carol M. Browner, Secretary, and the South Florida Water Management District and Timer E. Powers, Interim Executive Director, for entry of an Order in accordance with the terms of the Settlement Agreement (Agreement) attached as Exhibit I.

On consideration thereof, it is:

ORDERED:

1. The Court has jurisdiction over this action. The Agreement is approved by the Court and by reference made a part of this Order. The Parties to this Agreement are ordered to comply with its terms.

2. The court shall retain jurisdiction over this matter for the purpose of enabling any of the Parties to the

Agreement to apply to the Court at any time for such further orders or directives as may be necessary or appropriate for enforcement or modification of the terms of the Agreement.

DONE AND ORDERED in Miami, Florida, this —— day of ——, 1991.

WILLIAM M. HOEVELER
District Judge

APPENDIX A TO SETTLEMENT AGREEMENT

PHOSPHORUS LIMITS FOR INFLOWS INTO EVERGLADES NATIONAL PARK

Attachment I describes interim and long term total phosphorus limits for the combined inflow to Shark River Slough. These limits shall apply to the annual Water Year (October 1—September 30) flow-weighted-mean concentration of inflows to Shark River Slough, composited across all structures, including S-12A, S-12B, S-12C, S-12D, S-333, and any subsequent inflow points from the WCAs established in the future. Attachment II describes long term discharge limits which will apply to the combined inflow to the Taylor Slough (S-332 and S-175) and Coastal (S-18C) basins. In each basin, long term discharge limits are the limits necessary to meet the OFW water quality criteria as measured at the structures discharging into the Park. These limits will also apply to areas immediately downstream in the Park and will be used to determine compliance. The adequacy of these OFW criteria to meet the State water quality standard Class III criteria (to prevent an imbalance of flora and fauna) will be verified by long term monitoring and research.

If research to determine the numeric value for the Class III narrative nutrient criteria results in a more stringent Park phosphorus limit, then the more stringent inflow limit shall apply. Effective dates for the phosphorus inflow limits are as follows:

Water Body	Effective Dates
Shark River Slough—Interim Limits	July 1, 1997
Shark River Slough—Long-Term Limits	July 1, 2002
Taylor Slough and Coastal Basins—Long Term Limits	July 1, 2002

Phosphorus limits apply to flow-weighted-mean concentrations computed on an annual Water Year basis, with data reported and calculated on a monthly basis.

To account for hydrologic variations in Shark River Slough, the limits vary with the previous 12-month's total flow in each basin. The long term limit for Taylor Slough and the Coastal Basin is fixed and does not vary with flow. The limits represent the 10% rejection level of the observed flow-weighted-mean concentration at a given total annual flow, adjusted to a baseline time period of March 1, 1978 to March 1, 1979 for Shark River Slough (OFW baseline). The baseline time period for the Taylor Slough and Coastal Basins is Water Year 1984. Compliance with these limits is expected to provide a long term average flow-weighted mean inflow concentration of approximately 8 ppb for the Shark River Slough Basin and 6 ppb for the Taylor Slough and Coastal Basins. Approximate values are as follows:

	Dry Year (117 Kac-ft/yr)	Wet Year (1061 Kac-ft/yr)
Shark River Slough —Interim Limits		
Flow-Weighted Mean	< 14 ppb	< 9 ppb
Shark River Slough —Long Term Limits		
Flow-Weighted Mean	< 13 ppb	< 8 ppb
Taylor Slough & Coastal Basins —Long Term Limit is 11 ppb.		

Frequency of samples exceeding 10 ppb within a given 12-month period have also been developed to aid in tracking compliance. Approximate values are as follows:

	Dry Year	Wet Year
Shark River Slough —Frequency Exceedance		
Frequency > 10 ppb	< 70%	< 40%
Taylor Slough & Coastal Basins —Frequency Exceedance must be < 53%		

Precise values for the Shark River Slough flow-weighted-mean concentration limits and the frequency at which 10 ppb can be exceeded can be calculated for a given annual flow using the equations given in Attachment I.

A panel of scientists designated by the TOC will track and evaluate compliance with all aspects of state water quality standards including the phosphorus limits, concentration levels and criteria. The represented agencies may request technical assistance from others.

After each additional sampling round at intervals of every other week, the flow-weighted mean will be calculated based upon data from the previous 12 months and compared with the limits corresponding to the previous 12-month's total flow. If the flow-weighted-mean limit is exceeded, the panel will be convened to review recent monitoring data and assess potential causes. Any agency represented on the TOC may request an official review of the monthly mean and frequency calculations for potential violations of the phosphorus limits during the water year.

An exceedance occurs if the flow-weighted-mean concentration for the water year ending September 30th is greater than the 10% rejection level of the computed limit (see Attachments). Based upon review of trends for flow-weighted means, trends for the frequencies of samples exceeding 10 ppb, and other information found relevant by the panel, the TOC members will forward their opinions and recommendations to their respective agencies for appropriate action. An exceedance will constitute a violation unless the TOC determines there is substantial evidence that it is due to error or extraordinary natural phenomena. A violation of a long term limit shall constitute a violation of this Agreement and of the OFW water quality standard for Park areas immediately downstream of the inflow structures.

Attachment I—Discharge Limits and OFW Standards for Shark River Slough

Interim Discharge Limit:

$$C = 11.16 - .00465 \cdot Q + 1.397 \cdot \sqrt{[6.377 - .00591 \cdot Q + .00000436 \cdot Q^2]}$$

Long-Term Discharge Limit & OFW Standard:

$$C = 11.38 - .00538 \cdot Q + 1.397 \cdot \sqrt{[2.493 - .00231 \cdot Q + .00000170 \cdot Q^2]}$$

Frequency Exceedance:

$$F = 48.411 - 0.02896 \cdot Q + 1.397 \cdot \sqrt{[330.1 - 0.3071 \cdot Q + 0.0002254 \cdot Q^2]}$$

Terms:

Water Year = October through September

Q = total inflow to Shark River Slough for water year, S-12s + S-333 + any additional inflow from the WCAs established in the future, thousand acre-ft/yr (Kac-ft/yr).

C = limit on maximum flow-weighted-mean inflow concentration for any Water Year, composite of all inflows to Shark Slough (ppb).

F = exceedance for maximum frequency (percent) of inflow concentrations exceeding 10 ppb, computed from the time series of concentrations composited across all inflow structures on each sampling date with positive flow in a given Water Year.

The range of flow (Q) used in deriving the limits is 117 to 1061 Kac-ft/yr. If the total flow for any water year exceeds 1061 Kac-ft/yr, a flow of 1061 Kac-ft/yr should be used in calculating the discharge limits.

Attachment II—Discharge Limits and OFW Standards for Taylor Slough and Coastal Basins

Long-Term Flow-weighted Discharge Limit & OFW Standard = 11.0 ppb

Frequency Exceedance:

Frequency of values > 10 ppb must be less than 53.1%.

Terms:

Limits are defined on a Water Year basis, October through September.

Basin flow is the total flow through structures S-332, S-175, S-18C, plus any new release points from this basin established in the future, thousand acre-ft/yr (Kac-ft/yr).

Limits apply to the flow-weighed-mean concentration for any Water Year, composite of all inflows to Taylor Slough (S-332) and Coastal Basin (S-18C).

Frequency exceedance is the exceedance for maximum frequency (percent) of inflow concentrations exceeding 10 ppb, computed from the time series of concentrations composited across all inflow structures on each sampling date with positive flow in a given Water Year.

APPENDIX B TO SETTLEMENT AGREEMENT

PHOSPHORUS LEVELS AND DISCHARGE LIMITS FOR LOXAHATCHEE NATIONAL WILDLIFE REFUGE

Attachments I and II describe interim and long term total phosphorus concentration levels for the 14 Loxahatchee National Wildlife Refuge interior marsh stations. These concentration levels shall apply to monthly samples collected at 14 interior stations (CA1-3 to CA1-16) (map attached) when the average stage at the CA1-7, CA1-9, and CA1-8C gauges is greater than 15.4 feet msl (mean sea level). Phosphorus concentration levels apply to individual sampling date means. Sample date means represent geometric means, calculated from measurement at all of the 14 stations with sufficient water for accurate sampling. To account for the observed correlation between marsh total phosphorus concentration and stage, the concentration levels vary with the average interior stage on the date of sample collection. Effective dates for the phosphorus concentration levels are as follows:

	Effective Date
Interim Marsh Concentration Level (14 station geometric mean)	July 1, 1997
Marsh—Class III Standard (Applies to entire marsh)	July 1, 2002
or	
Long-Term Concentration Level (14 station geometric mean)	

Interim Concentration Levels

The interim levels represent the 10% rejection level of the observed 14 station interior marsh mean concentration at a given mean daily stage, adjusted to a baseline time period of June 1978—to June 1979. Compliance with these concentration levels is expected to provide a long term mean 14 station interior marsh concentration

of approximately 10 ppb. Interim values for the 14 station mean concentration levels can be calculated for a given mean daily stage using the equations given in Attachment I. Approximate values are as follows:

	Low Stage (15.42 ft msl)	High Stage (17.14 ft msl)
Interior Marsh Interim Concentration Levels (14 station geometric mean)	22 ppb	8 ppb

The current control program, consisting of on-line STAs and BMPs, as described in Appendices C and E, is designed to achieve a long-term average annual flow-weighted concentration of 50 ppb for each discharge to the Refuge and WCAs from the EAA. If the interim, or the lower of the long-term Refuge interior marsh station concentration levels or Class III criteria, are not met with the current control program, DER will require additional components to be added to the control program to meet a maximum annual discharge limitation of 50 ppb for all discharges into the Refuge from the EAA. The range of additional components will include increased STA acreage, more intensive management of STAs, a stronger regulatory program, or a combination of the above, based on actual performance achieved with the initial STA design and operation and the actual performance of BMPs as discussed in Appendices C and E. The State Parties shall not implement more intensive management of the STAs as the sole additional component. DER will modify the permit for the operation of the Refuge inflow structures to include the additional components of the control program and to establish 50 ppb as a maximum annual discharge limitation which would be enforceable after the additional components are operational.

Class III Criteria

The numerical interpretation of the Class III criteria for total phosphorus for the Refuge shall be determined by a research program designed by a panel of scientists designated by the Technical Oversight Committee. The

research program must be recommended by the TOC. Such research shall begin no later than July 1, 1992 and a final report shall be completed no later than July 1, 1997. The purpose of the research will be to determine water column total phosphorus concentrations above which imbalances in populations of the natural flora and fauna within the Refuge will occur and to determine the numerical interpretation of the Class III nutrient criterion for total phosphorus. Effective July 1, 2002, the long-term total phosphorus concentration levels for the Refuge will be the 10% rejection level of stations CA1-5, CA1-6 and CA1-16 at a given mean daily stage. These three stations had the lowest geometric mean total phosphorus concentrations during the 1978-1983 baseline period. The long term concentration levels will apply to all 14 stations. Compliance with these concentration levels is expected to provide a long term average 14 station interior marsh concentration of approximately 7 ppb. Precise values for the levels can be calculated for a given mean daily stage using the equations given in Attachment II. Approximate values are as follows:

	Low Stage (15.42 ft msl)	High Stage (17.14 ft msl)
Interior Marsh—Long Term Concentration Levels (14 station geometric mean)	**17**	**7**

If the TOC determines Class III total phosphorus concentration levels are lower than the long term total phosphorus concentration levels then the lower levels shall apply.

With respect to STA-1, the original design, in operation by 1997, will include an effective treatment area of 7400 acres. The remaining acreage (4400 effective treatment area acres plus approximately 290 acres for berms, etc.) will be placed in service if the Refuge's long term concentration levels have not been met by the July 1, 2000. If the lower of the Class III or long-term levels is not met by the July 1, 2002 and the 50 ppb maximum annual

discharge limit is being met at all inflow structures into the Refuge from the EAA, the TOC will recommend a lower maximum annual discharge limit for the structures to be enforced by DER. Additional actions, such as regulatory measures and increased STA acreage, as appropriate from the empirical data on performance of each program, will be required by either DER or the District to meet the lower discharge limit.

Compliance Review

A panel of scientists designated by the TOC will track and evaluate compliance with all aspects of state water quality standards including the phosphorus limits, concentration levels and criteria. The represented agencies may request technical assistance from others.

An exceedance occurs if the 14 station mean concentration is greater than the computed concentration level two or more times in any 12 consecutive sample collections. Based upon review of monthly trends for the 14 station mean and other relevant information, the TOC members will forward their opinions and recommendations to their respective agencies for relevant action. An exceedance will constitute a violation of this Agreement and relevant water quality criteria unless the TOC determines there is substantial evidence that it is due to error or extraordinary natural phenomena.

If fewer than three sampling date geometric means collected within the past 12 consecutive sampling periods are below the mean interior marsh total phosphorus concentration level during the baseline period, then the panel will be convened to review monitoring data and assess the potential causes and recommend changes in the total phosphorus levels as necessary to meet the objectives of this Agreement.

Attachment I—Interim Marsh Concentration Levels for Loxahatchee National Wildlife Refuge

Interim Marsh Concentration Levels:

$$C = 11.9187 - .603261 \cdot S + 1.372 \cdot \sqrt{[\ 7.5311 - .9247 \cdot S + .02882758 \cdot S^2]}$$

Terms:

C=The natural log of the geometric mean total phosphorus concentration across 14 marsh stations (CA1-3 to CA1-16).

S=Average stage measured at gauges CA1-9, CA1-7, and CA1-8C on sampling date (feet)

This equation is applicable over a stage range of 15.42 to 17.14 feet. If the stage on any sampling date exceeds 17.14 feet, a stage of 17.14 feet should be used in calculating the concentration levels. The concentration levels should not apply to dates when the average stage is less than 15.42 feet.

Attachment II—Long Term Marsh Concentration Levels for Loxahatchee National Wildlife Refuge

Long Term Marsh Concentration Levels:

$$C=10.7172-.541156 \cdot S+1.372 \cdot \sqrt{[\ 7.5819 -.9310 \cdot S+.02902216 \cdot S^2]}$$

Terms:

C=The natural log of the geometric mean total phosphorus concentration across 14 marsh stations.

S=average stage measured at gauges CA1-9, CA1-7, and CA1-8C on sampling date (feet)

This equation is applicable over a stage range of 15.42 to 17.14 feet. If the stage on any sampling date exceeds 17.14 feet, a stage of 17.14 feet should be used in calculating the long term concentration levels. The equation shall not apply to dates when the average stage is less than 15.42 feet.

APPENDIX C TO SETTLEMENT AGREEMENT

STORMWATER TREATMENT AREAS (STAs)

The control program described below and in Appendix E is anticipated to meet interim and long term concentration levels and limits for Everglades National Park (Park) and Loxahatchee National Wildlife Refuge (Refuge). The control program is designed to achieve approximately an 80% reduction in phosphorous loads from the Everglades Agricultural Area (EAA) to the Everglades Protection Area (EPA) by July 1, 1997 and greater than an 85% reduction in phosphorous loads to the Refuge by July 1, 2002, relative to average annual loads measured in Water Years 1979 through 1988. This objective can be achieved through the combined use of agricultural best management practices (BMPs) and stormwater treatment areas (STA's) designed and operated to maximize phosphorous Key Assumptions for sizing STAs:

The sizes and locations of the STAs have been determined based upon the following assumptions:

1) It is assumed that the BMP Regulatory Program will achieve a 25% load reduction from each EAA watershed. The 25% load reduction will be assured through performance limitations associated with the BMP Regulatory Program. This represents a realistic estimate of the efficiency of a BMP program in removing phosphorus based upon BMP research conducted by the Institute of Food and Agricultural Science.

2) It is assumed that water retention (i.e. water lost to surface water flow downstream from the EAA) due to implementation of BMPs will equal 20% of the total base flow that was discharged from the EAA from 1979 through 1988.

3) Based upon worldwide experience with whole-system wetland treatment areas, the STAs should be

capable of removing approximately 70% of their influent phosphorus loads. A further load reduction of approximately 6% is expected to result from conversion of existing agricultural lands into STAs. The combined load reductions attributed to land-use changes (6%), BMP's (25%) and STAs (70%) applied in series can therefore be reasonably expected to achieve a total reduction of approximately 80% relative to the amount of phosphorus that was historically discharged from the EAA into the EPA.
4) It is assumed that an effective settling rate for total phosphorus of 8 meters/yr will characterize phosphorus uptake within the STAs. This settling rate is based upon historical uptake rates estimated for the WCA-2A system (which is not managed to maximize nutrient uptake) and is supported by long-term performance data from wetland treatment systems worldwide.

5) The initial size calculations are based on the assumption that the volume of flows experienced during the 1979 to 1988 base period from each tributary basin would be treated with no hydraulic bypass during storm events (i.e. all water gets treated).

6) For modeling purposes, the historic nutrient load and flow from each basin was reduced to account for (a) low-flow water-supply deliveries (canal flows released from Lake Okeechobee which do not impact WCA marshes) and (b) land taken out of agricultural use for construction of the treatment systems.

7) The long term average performance of the STAs is predicted using water and phosphorus balances which consider watershed inflows, direct rainfall on STA surfaces, evapotranspiration, atmospheric phosphorus loads, phosphorus uptake, and outflows.

Estimated STA Performance:

Based on overall phosphorus loads and flows estimated to result from implementation of the STAs and BMP program, the combined flow-weighted mean concentration in discharges from S5A, S6, S7, S150, and S8 will be reduced from 168 ppb to 50 ppb. Accordingly, the STAs are located and sized to deliver a uniform long term annual flow-weighted mean concentration of 50 ppb or less at each inflow point to the EPA. Accomplishment of this objective will provide an overall load reduction of approximately 80% from the EAA into the EPA and a load reduction of at least 85% from the EAA into the Refuge. The District shall take mitigation measures such as declaring a water shortage, implementing supply side management, releasing water from Lake Okeechobee, reducing water retention in the EAA or adding flow from east of the EPA to offset flow reduction to the EPA.

STA Size Estimates:

Table 1 provides an estimate of the effective treatment areas of STAs. The sizes and configurations of STAs are designed to achieve an outflow concentration of approximately 50 ppb at each STA outflow point. These STA acreages and the BMP Regulatory Program provide the control programs which are anticipated to meet both the interim and long term Refuge and Park phosphorus limits and concentration levels. However, notwithstanding implementation of these control programs, if the Park or Refuge phosphorus limits or concentration levels are violated, then additional remedies will be taken, such as expansion of STAs, more intensive management of STAs, a more stringent EAA Regulatory Program, or a combination of the above. The State Parties shall not implement more intensive management of the STAs as the sole additional remedy.

Table 1. STA Effective Area

Basin	STA	Approximate Total Acres to be Purchased	Effective Treatment Acres
S-5A	STA-1	12,500	11,800
S-6	STA-2	4,000	3,700
S-7	STA-3	5,270	4,950
S-8	STA-4	12,930	12,150
TOTAL:		34,700	32,600

Operational Considerations:

Operational flexibility may be required, in order to divert flows from one basin to another (e.g. S8 & S6 to STA-3) in order to make optimal use of the total effective treatment area of wetlands within the STAs and distribute water of uniform phosphorus concentration across EPA inflow points. The sizes and configurations of STAs 2, 3, and 4 may be adjusted, after a more detailed engineering analysis of the system has been completed. The total acreage of these three STAs will not be reduced. This analysis will determine optimal methods for routing water within and between the S-6, S-7 and S-8 basins to make most effective use of the STAs and to ensure that all of the runoff is treated. STAs 2, 3, and 4 will be operational by July 1, 1997. With respect to STA-1, 7,400 acres of effective treatment area will be operational by July 1, 1997. The District will construct an additional 4,400 acres of effective treatment area by July 1, 2002 if the year 2002 Refuge long term concentration levels or Class III criteria, whichever is lower, are not met by July 1, 2000.

The District will also design and implement control programs for other watersheds outside of the EAA discharging into the EPA, including L3, S140, L28I.

Sensitivity of Treatment Area (Acreage) to BMP Performance

The above treatment areas assume that the BMP regulatory program will achieve a 25% reduction in phos-

phorus loads from each basin. Table 2 lists the treatment areas which would be required to achieve a 50 ppb concentration at EPA inflow points for other assumed BMP performance levels:

Table 2. Effective Treatment Areas (1000 Acres) Required to Achieve 50 ppb at EPA Inflow Points

	BMP Performance		
Load Reduction	0%	15%	25%
Volume Reduction	0%	12%	20%
S-5A	15.0	13.1	11.8
S-6	4.9	4.2	3.7
S-7	6.7	5.6	5.0
S-8	15.4	13.5	12.2
Total	41.9	36.4	32.6

If the BMP program achieves a 15% reduction in phosporus load (instead of the assumed 25%), an additional 3,800 treatment acres would be required to meet 50 ppb. If the BMP program does not achieve the predicted load reduction, up to 9,300 additional acres would be required.

Control Program to Achieve Compliance with Class III Criteria

The research program will provide additional data to support the interpretation of Class III water quality criteria for the Refuge, Park, and the WCA's. Modification of the control program to achieve Class III criteria will reflect new information obtained in the research program and observed performance of the BMP's and STAs in the interim phase of the control program. Table 3 provides hypothetical estimates of the additional treatment acreage (beyond the 32,600 acres prescribed in the above plan) which may be required to achieve discharge concentrations of 40, 30, and 20 ppb total phosphorus for various levels of observed BMP and STA performance.

Table 3. Additional Effective Treatment Areas (1000 Acres) Beyond the Above Control Program (32,600 Acres) Required to Achieve Total Phosphorus Discharge Concentrations

Observed BMP Performance Load Reduction		Observed STA Performance Phosphorus Settling Rate (m/yr) Low 6 m/yr	Expected 8 m/yr	High 10 m/yr
Total Phosphorus Discharge Concentration = 40 ppb				
None	0%	32.5	17.0	7.6
Low	15%	24.7	10.8	2.6
Expected	25%	19.2	6.5	−1.2
High	40%	10.6	−0.3	−6.7
Total Phosphorus Discharge Concentration = 30 ppb				
None	0%	45.4	27.1	15.7
Low	15%	36.5	19.9	10.1
Expected	25%	30.4	15.0	5.7
High	40%	20.5	7.2	−0.7
Total Phosphorus Discharge Concentration = 20 ppb				
None	0%	64.2	41.5	27.5
Low	15%	54.1	33.2	20.9
Expected	25%	46.9	27.4	15.7
High	40%	35.4	18.3	8.1

For example, if the BMP's and STAs perform according to design assumptions, (25% BMP reduction, Settling Rate = 8 m/yr), an additional effective treatment area of 15,000 acres would be required to achieve a total phosphorus discharge concentration of 30 ppb at EPA inflow points. If low performance is demonstrated for both controls (15% BMP reduction, Settling Rate = 6 m/yr), an additional treatment area of 36,500 acres would be required to achieve 30 ppb. Similar dependencies exist for other total phosphorus discharge concentrations.

APPENDIX D TO SETTLEMENT AGREEMENT

RESEARCH AND MONITORING PROGRAM

The State Parties shall initiate a comprehensive, long-term, multi-agency cooperative research and monitoring program. Planning for this research and monitoring program will be completed within six (6) months after settlement and implemented according to a schedule established by the TOC. The State Parties shall primarily be responsible for the research and monitoring program with support from the United States. The National Park Service, the U.S. Fish and Wildlife Service, the USEPA and the Corps will assist in the research and monitoring. For example, funds available under section 319 of the Clean Water Act can be granted to the State Parties by USEPA in support of approved monitoring programs to assess effectiveness of BMP and STAs.

RESEARCH PLAN

The research objectives will be to assess the current and continuing responses of the Everglades wetlands to nutrient inputs from cultural eutrophication, and to determine maximum levels of nutrients that will not cause imbalances in natural populations of aquatic flora and fauna (Florida Class III Water Quality Standards). Research to determine the Class III criteria for the Park, Refuge, and Water Conservation Areas shall begin no later than July 1, 1992, and final reports shall be completed no later than July 1, 1997.

This program shall include the following minimum components to achieve the above objectives:

1) Initiate, develop, collect appropriate additional data for and complete detailed modeling efforts to measure quality and qauntity impacts of system operation and alternatives for the purpose of improving water quality in the Everglades system. Detailed nutrient modeling for the Refuge, Water Conserva-

tion Areas (WCA's), Park, C-111 Basin and Northeast Shark River Slough shall incorporate the best available scientific information on nutrient dynamics (including peat accretion rates; soil uptake kinetics; macrophyte and periphyton uptake kinetics; and total phosporus transport mechanisms, including storage and transport in shallow seepage) to determine the fate of introduced nutrients and trends. Similar budget models must be prepared for Stormwater Treatment Areas (STAs), with emphasis given to the interrelationships between water management and water quality in determining the effectiveness of these systems. Each model shall be designed to predict changes in outflow water quality likely to result from changes in inflow water quality and quantity in the WCAs and to predict and assess the long-term success of nutrient management strategies in achieving water quality criteria.

2) Develop a research program to determine the existing conditions and if additional damage in the Refuge and Park marshes has occurred due to interim delivery levels of total phosphorus or if reversals of damage are evident.

3) Develop a program that will include experimental approaches to interpret the Class III nutrient criterion regarding imbalances of flora and fauna. Determine if concentration standards provide sufficient protection against imbalance or whether limitations on phosphorus loads into the Park and Refuge are required. An array of indices will be used to measure sensitivity of the ecosystem to small changes in nutrients. These will include nutrient cycling processes and the basic components of the Everglades ecosystem, such as periphyton, and other sensitive indicators of nutrient enrichment.

4) Contingent upon availability of leased or private lands, develop and initiate research to measure per-

formance and improve field efficiency of BMPs. During implementation, control areas (with conventional cropping systems) should be used to determine BMP effectiveness in controlling total phosphorus losses and water reductions. Water sampling design must allow for close monitoring of performance of the individual management practices and represent the range of all field conditions. Performance results will be used to shape further development of management options, and further training of farmers, if needed.

MONITORING PLAN

The monitoring program shall include water quality and biological monitoring at interior marsh stations and downstream of all structures discharging into the Refuge, WCAs, and Park, including the Holeyland, Northeast Shark River Slough, Taylor Slough and C-111 Basin. The objective of the monitoring is to measure effectiveness of the total phosphorus limits and concentration levels and document evidence of further disturbances, or recovery processes, in the Refuge, Water Conservation Areas, and Park.

This monitoring program shall conform to the following minimum requirements:

1) Water quality monitoring shall include timely data on flows, stages, routine water quality parameters, pesticides/herbicides, and heavy metals. This may necessitate use of provisional or unofficial data for calculation of flows, stage data, and flow weighted calculations. Actual values may change after verification. All water control structures for the Refuge, the Park, and the WCAs will be monitored, as is done by the present SFWMD CAMB, ENP, and LEC programs. Monitoring will be extended to any new water control structures added to the delivery system. The monitoring program shall include water quality sampling every other week at all Park and

Refuge delivery points and at representative internal marsh stations including monthly sampling at the 14 permanent Refuge stations. The District's current water quality monitoring program shall continue with emphasis on total phosphorus, orthophosphate, ammonia, nitrate/nitrite, total nitrogen, chlorophyll-a, alkaline phosphatase, physical parameters, ions, heavy metals (especially mercury), and pesticides/herbicides. A plan for limiting pesticide/herbicide and heavy metals analysis to a range of representative compounds and sampling locations can be considered.

2) In order to adequately assess Refuge and WCA nutrient inputs and outputs and Park nutrient inputs, the monitoring program shall include water quality monitoring of discharges at all relevant structures, monitoring of the nutrient content of atmospheric deposition in the Everglades system and monitoring of agricultural discharge quality. Atmospheric deposition will be monitored at selected sites in the EAA, WCAs, the Refuge, and the Park. The same field sampling and laboratory protocol will be employed at all sites.

3) Monitoring shall be implemented to identify variation (temporal and spatial) in biological and water quality parameters along transects in the WCAs, Park, and Refuge originating at major surface water inflow points and continuing along flow gradients. This must include representative transects in Shark River Slough, Taylor Slough, and in background areas of the Park and Refuge. Parameters monitored will include, at a minimum: routine water quality parameters in surface water samples; soil nutrient content, redox potential, and phosphatase activity; including major indicators of periphyton community composition, macrophyte nutrient content and macrophyte community composition.

4) All monitoring programs must have a DER approved QA/QC plan in place within 9 months of the date of this Agreement. Any proposed changes in field sampling protocol or laboratory procedure must be justified and brought to the attention of the TOC for approval before implementation. The sampling designs, frequency, analytical methodology, and QA/QC protocols employed in the monitoring program shall be subject to mutual acceptance by all parties. The overall objective will be to maximize the accuracy and precision of the monitoring data, while insuring that any new sampling techniques or analytical procedures will not introduce biases relative to the historical monitoring data upon which the limits are based. The plan should include measurements of concentrations due to contamination during field sampling and processing as well as laboratory analysis, and comparison of these levels to interim and long-term standards.

REVIEW AND OVERSIGHT

The TOC will designate a panel for review, oversight and interpretation of the research and monitoring program. The purpose of this panel is to:

1) Review QA/QC documentation and requirements for consistency and approve modifications necessary to insure accuracy and quality of data collection, analysis, and interpretation,

2) Review and define suitability of measurement parameters and experimental designs,

3) Establish priorities within each component of research and monitoring program, and

4) Review any proposed monitoring and research for consistency with objectives as defined in these Appendices or recommend modifications to objectives, experimental design, and monitoring based on analysis of results.

APPENDIX E TO SETTLEMENT AGREEMENT

EVERGLADES AGRICULTURAL AREA REGULATORY PROGRAM

I. Background

A. The goal of the regulatory strategy is to reduce present total phosphorus loads from the EAA to each Stormwater Treatment Area (STA) by at least by [sic] 25% by February 1996. An interim target reduction of 10% in total phosphorus loads from the EAA will be required by February 1994.

B. The District will have all sources in the EAA under either individual or master permits by July 1993. All sources must comply with all permit conditions by February 1996. If permits are not issued by July 1, 1993 or compliance is not achieved by February 1996, the District will institute appropriate compliance and enforcement action.

C. Achieving a 25% reduction through the application of BMP's will require a regulatory program that includes at least the following elements:

1. Development and implementation of BMPs
2. Permitting
3. Monitoring
4. Enforcement

The basic concepts of the regulatory program are to maintain water levels elevated in the organic soils to reduce oxidation and release of phosphorus, and to apply only sufficient phosphorus to maintain crop productivity and thereby eliminate excess phosphorus as much as possible.

D. Owners of contiguous land may submit a single application for a Master Permit; however phosphorus load

allocations will be based on the basin and corresponding STA to which the land is tributary.

II. Implementation

A. The effective date of the rule should be no later than May 31, 1992, (based on rule adoption in April 1992) if the rule making process remains on schedule. Any challenges received will delay the effective date only by the amount of time necessary to complete the challenge process.

B. Permit applications must be submitted and completed in time for final agency action on them to take place by July 1993.

III. Conditions For Issuance for Individual or Master Permits.

A. An applicant entity must demonstrate enforcement authority and the ability to carry out all acts necessary to implement the terms and conditions of the permit.

B. The applicant will be required to not exceed the phosphorus load allocation as specified in section VI B. to be applied as a moving annual average. This requirement is in addition to successful implementation of the applicant's approved BMP program. Notwithstanding the BMP program, the applicant is still responsible for achieving the required phosphorus load allocation.

C. An applicant will be required to institute a BMP Program that will meet the required interim and long term phosphorus load allocations. Compliance with these load allocations should result in the interim and longterm (1996) target reductions of 10% and 25% respectively in total phosphorus load from the EAA being achieved. The BMP Program must include the following elements:

1. An acceptable fertility and water management plan for each crop, combination of crops or farming units.

2. An acceptable design for water management including field water management strategies, description of infrastructure, inter- and intra-operation water routing, probable volume and timing of discharge, and expected nutrient recovery. The application must include procedures for monitoring system performance.

3. An acceptable monitoring plan to verify BMP performance and implementation.

4. An acceptable schedule to begin implementing the BMP program and measuring compliance within one year of permit issuance. Fertility management planning and other operational management BMPs shall be in place by the fall of 1993. Structural changes shall be presented to the SFWMD in 1994 and installed by 1995. In order to achieve the load allocations all BMPs shall be operational by 1996.

5. An acceptable education and training program for management and operational staff to implement and monitor the approved BMP program.

6. The applicant can submit alternative BMP designs if they can be shown to be equally effective.

D. The applicant will be required to submit an acceptable water quality monitoring plan that documents:

1. Compliance with annual load allocation;

2. BMP implementation and operation;

3. BMP effectiveness (BMP research can be used to supplement data where appropriate);

4. Identification of high episodic phosphorus events.

The plan must monitor flow and total phosphorus concentration discharged from the permitted area on a continuous basis, as required by the District. Sampling must be conducted by qualified individuals, and samples must

be analyzed by a certified laboratory with a DER approved QA/QC plan.

IV. Content of Application for Individual or Master Permits.

A. An application for a Master Permit must include information that demonstrates the applicant entity possesses the authority and the ability to carry out all acts necessary to implement the terms and conditions of the permit, including enforcement authority. At a minimum, the application must include:

1. Clear delineation of the area contained in the permit;

2. Interlocal agreements with municipalities and other entities of local government, as necessary;

3. Written contracts with landowners, as necessary.

B. Each application must include a BMP program with the following elements:

1. A fertility and water management plan for each crop, combination of crops or farming units.

2. A design for water management, including field water management strategies, description of infrastructure, inter- and intra-operation water routing, probable volume and timing of discharge, and expected nutrient recovery.

3. A monitoring plan to verify BMP performance and implementation.

4. An education and training program for management and operational staff to implement and monitor the approved BMP program.

5. A schedule for implementing the BMP program and monitoring plan within one year of permit issuance. The schedule must require fertility management planning and other operational management

BMPs to be in place by the fall of 1993; structural changes to be presented to the SFWMD in 1994 and installed by 1995; and all BMPs to be operational by 1996.

6. Alternative BMP designs, if they can be shown to be equally effective.

C. A monitoring plan to provide for monitoring flow and total phosphorus concentration discharged from the permitted area on a continuous basis, as required by the District. The plan must provide for sampling to be conducted by qualified individuals, and for samples to be analyzed by a certified laboratory with a DER approved QA/QC plan.

V. Limiting Conditions

A. The permittee must successfully implement all elements and requirements of the approved BMP program.

B. The applicant must achieve the required phosphorus load allocation. Total phosphorus allocations (lbs/acre/yr) for permits within the S-5A, S-6, S-7 and S-8 basins will be calculated individually for each basin. Basin historical areal export rate for each basin will be calculated by dividing the basin (i.e. pump station) average annual total phosphorus load for Water Years 1979-88 (less the load associated with water supply deliveries to the Lower East Coast and less the load associated with the lands to be used for STAs) by the contributory area for each pump station. The contributing area will not include lands to be used for STAs and public preservation lands which are not actively drained. The 1994 interim load allocation will be calculated by multiplying the historical areal export rate by 0.90. The 1996 load allocation will be calculated by multiplying the historical areal export rate by 0.75.

C. The permittee must annually submit an implementation status report on their approved plan for achieving

water quality objectives, and report results of water quality sampling and flow measurements.

D. The permittee must implement the monitoring program adequately to ensure that the following are documented:

1. Compliance with annual load allocation;

2. BMP implementation and operation;

3. BMP effectiveness (BMP research can be used to supplement data where appropriate);

4. Identification of high episodic phosphorus events.

Flow and total phosphorus concentration discharged from the permitted area must be monitored on a continuous basis, as required by the District. Quarterly and annual report of results must be submitted to the District. Sampling must be conducted by qualified individuals, and samples must be analyzed by a certified laboratory with a DER approved QA/QC plan.

E. Each permittee will be required to submit an annual report to the District summarizing BMP implementation and associated monitoring to evaluate BMP effectiveness. Each permittee will be required to submit a summary of required activities including BMP installation, BMP operation activities (pertinent to water management and nutrient management), water quality assurance audits, and intra-operation water quality checks. This summary will be produced for the appropriate operational scale.

F. Each permittee will be required to maintain appropriate records as part of the permit.

VI. Compliance and Enforcement

A. The intent is to identify critical problems before non-acceptable loads occur.

B. Compliance with total phosphorus load allocation will be determined by measuring flow and concentration

at the applicant's property boundary, with adjustment for hydrologic variability with respect to the 10-year base period such as an adjustment for rainfall made considering that year's rainfall versus average annual rainfall over the 10-year base period.

C. The District will audit BMP implementation by permittees. The District will establish reporting and monitoring protocols and will describe the audit procedure. Each permittee is required to maintain appropriate records as part of the permit.

D. The District will monitor:

1. Quantity and quality of water discharged by each permittee sufficient to verify with reasonable certainty that the permittee's monitoring program is adequate.

2. BMP performance at selected sites.

E. If a permittee exceeds its permitted areal phosphorus load allocation for February 1994 or 1996, the permittee shall:

1. Present a plan for monitoring all pumping and discharge facilities within the permitted area for flow and concentration on a continuous basis;

2. Submit a proposed compliance plan and schedule (including additional BMP designs) which will bring the permittee into compliance within 6 months.

3. The District shall review the plan and schedule, and:

a. If acceptable, will amend the permit accordingly;

b. If unacceptable will impose penalties or take whatever enforcement actions are appropriate, including but not limited to those set forth in Sections 373..044, 373.083. 373.119, 373.129,

373.136, 373.603, F.S., and Chapter 40E-1, F.A.C.

Section 373.044, F.S., authorizes the governing board to make and adopt reasonable rules, regulations, and orders which may be enforced by mandatory injunction or other appropriate action in the courts of the state.

Section 373.083, F.S., authorizes the governing board to issue orders to implement or enforce any of the provisions of or regulations adopted pursuant to Chapter 373, F.S.

Section 373.119, F.S., authorizes the executive director of the District to serve administrative complaint and orders prescribing corrective action whenever there is reason to believe that a violation of the provisions of or regulations adopted pursuant to Chapter 373. F.S., has occurred, or is about to occur. The order becomes final unless the person served requests a hearing within 14 days. The executive director, with concurrence of the governing board, may issue emergency orders requiring immediate compliance if they find that immediate action is needed to protect the public health, safety, or welfare.

Section 373.129, F.S., authorizes the department, the governing board, and any local board to commence actions in courts for the following purposes:

(1) To enforce rules, regulations, and orders;

(2) To enforce violations of the provisions of or regulations adopted pursuant to Chapter 373. Florida Statutes;

(3) To protect and preserve the water resources of the state;

(4) To defend actions pertaining to the water resources of the state;

(5) To recover civil penalties up to $10,000 per offense; Each date during which a violation occurs is a separate offense;

(6) To recover investigative costs, court costs, and reasonable attorney's fees.

Section 373.136, F.S., authorizes the governing board to enforce its regulations and orders by suit for injunction or other action in the courts of the state.

Section 373.603, F.S., authorizes the department or the governing board to enforce the provisions of and regulations adopted pursuant to Chapter 373. F.S., to the same extent as any peace officer is authorized to enforce the law.

Chapter 40E-1, F.A.C., contains general and procedural provisions adopted as rules by the governing board.

Part V of F.A.C. Chapter 40E-1 addresses decisions determining substantial interests (formal and informal administrative hearings). Part VI addresses permits. Section 40E-1.611, F.A.C., covers emergency action. Section 40E-1.612, F.A.C., covers administrative enforcement action.

APPENDIX H

Florida Surface Water Improvement and Management Act, Ch. 87-97 eff. July 1, 1987, [as amended, § 373.451 et seq., Fla. Stat. (1993)]:

Section 2. Surface water improvement and management plans and programs [§ 373.453, Fla. Stat. (1987) through (1993)].—

(1)(a) Each water management district . . . shall prepare and maintain a list which shall prioritize water bodies of regional or statewide significance within each water management district. . . . The list shall be based on criteria adopted by rule of the department [of Environmental Protection] and shall assign priorities to the water bodies based on their need for protection and restoration.

. . .

(c) In developing their respective priority lists, water management districts shall give consideration to the following priority areas:

1. The South Florida Water Management District shall give priority to the restoration needs of Lake Okeechobee, Biscayne Bay, and the Indian River Lagoon system and their tributaries.

. . .

(2) Once the priority lists are approved by the department, the water management districts, in cooperation with the department, . . . shall develop surface water improvement and management plans for the water bodies based on the priority lists. The department shall establish a uniform format for such plans and a schedule for reviewing and updating the plans. These plans shall include, but not be limited to:

(a) A description of the water body system, its historical and current uses, its hydrology, and a his-

tory of the conditions which have led to the need for restoration or protection; . . .

(c) A description of land uses within the drainage basin within the approved surface water improvement and management plan area and those of important tributaries, point and nonpoint sources of pollution, and permitted discharge activities;

(d) A list of the owners of point and nonpoint sources of water pollution that are discharged into each water body and tributary thereto and that adversely affect the public interest . . . . The plan shall also include recommendations and schedules for bringing all sources into compliance with state standards when not contrary to the public interest. This paragraph does not authorize any existing or future violation of any applicable statute, regulation, or permit requirement, and does not diminish the authority of the department or the water management district.

(e) A description of strategies and potential strategies for restoring or protecting the water body to Class III or better;

(f) A listing of studies that are being or have been prepared for the water body.

(g) A description of the research and feasibility studies which will be performed to determine the particular strategies to restore or protect the water body; . . . .

(i) A schedule for restoration and protection of the water body; and

(j) An estimate of the funding needed to carry out the restoration or protection strategies.

(3) Each water management district shall be responsible for planning and coordinating restoration or protection strategies for the priority water bodies

within the district which have been approved by the department as water bodies of regional and statewide significance in need of protection or restoration.

Section 3. Review of surface water improvement and management plans. [§ 373.455, Fla. Stat. (1987) through (1993)]—

(1) At least 30 days prior to any public hearing on its surface water improvement and management plan, a water management district shall transmit its proposed plan to the Department of Environmental Regulation . . .

(2) The Department of Environmental Regulation shall review each proposed surface water improvement and management plan for the purpose of determining:

(a) Whether the costs described in the plan, as projected by the water management districts, are reasonable estimates of the actual costs of the programs in the plan;

(b) The likelihood of the programs in the plan resulting in significant improvements in water quality in the priority surface waters designated in the plan; and

(c) The combination of programs which can be funded based on available revenues within the Surface Water Improvement and Management Trust Fund. . . .

Section 4. Implementation of surface water improvement and management plans and programs. [§ 373.457, Fla. Stat. (1987) through (1991)]—

(1) The funds in the Surface Water Improvement and Management Trust Fund shall be available to the water management districts for detailed planning for and implementation of surface water improvement and management plans. However, §§ 373.451-

373.4595 do not prohibit a water management district from requesting and receiving funds from the Surface Water Improvement and Management Trust Fund prior to March 1, 1988, for surface water improvement and management activities.

(2) In developing implementing programs for their surface water improvement and management plans, the water management districts shall consider the following program recommendations for the use of funds for fiscal year 1987-1988 in the priority areas identified in Section 2 of this act:

(a) The sum of $4,800,000 shall be available for the South Florida Water Management District for Lake Okeechobee.

(b) The sum of $2,000,000 shall be available for the South Florida Water Management District for Biscayne Bay, of which up to $500,000 is recommended to clean up the Miami River. The remainder of the funds available are recommended for retrofitting the 55 stormwater outfalls already identified by the Environmental Resources Management Department of Metro-Dade County as posing the greatest threat to the Biscayne Bay area or for other projects or activities that will contribute to the restoration of Biscayne Bay.

Section 6. Lake Okeechobee improvement and management.—

(1) LAKE OKEECHOBEE PROGRAM.—The South Florida Water Management District shall immediately design and implement a program to protect the water quality of Lake Okeechobee. Such program shall be based upon the recommendations of the Lake Okeechobee Technical Advisory Committee report entitled "Final Report: Lake Okeechobee Technical Committee" and dated August 1986, including the recommendations relating to the di-

version of Taylor Creek-Nubbins Slough, but such program may include other projects. In addition, the program design shall be completed by December 1, 1988, and shall be designed to result, by July 1, 1992, in reductions of phosphorus loadings to the lake by the amount specified as excess in the South Florida Water Management District's Technical Publication 81-2.

(2) DIVERSIONS; LAKE OKEECHOBEE TECHNICAL ADVISORY COUNCIL.—

(a) The Legislature finds that efforts to reduce nutrient levels in Lake Okeechobee have resulted in diversions of nutrient-laden waters to other environmentally sensitive areas, which diversions have resulted in adverse environmental effects. The Legislature also finds that both the agriculture industry and the environmental community are committed to protecting Lake Okeechobee and these environmentally sensitive areas from further harm and that this crisis must be addressed immediately. Therefore:

1. The South Florida Water Management District shall not divert waters to the Indian River estuary, the Caloosahatchee River or its estuary, or the Everglades National Park, in such a way that the state water quality standards are violated, that the nutrients in such diverted waters adversely affect indigenous vegetation communities or wildlife, or that fresh waters diverted to the Caloosahatchee or Indian River estuaries adversely affect the estuarine vegetation or wildlife, unless the receiving waters will biologically benefit by the diversion. However, diversion is permitted when an emergency is declared by the water management district, if the secretary of the Department of Environmental Regulation concurs.

2. The South Florida Water Management district may divert waters to other areas, including Lake

Hicpochee, unless otherwise provided by law. However, the district shall monitor the effects of such diversions to determine the extent of adverse or positive environmental effects on indigenous vegetation and wildlife. The results of the monitoring shall be reported to the Lake Okeechobee Technical Advisory Council. If the monitoring of such diversions reveals continuing adverse environmental effects, the district shall make recommendations to the Legislature by July 1, 1988, on how to cease the diversions.

(b)1. There is hereby created a Lake Okeechobee Technical Advisory Council. Council members shall be experts in the fields of botany, wildlife biology, aquatic biology, water quality chemistry, or hydrology, and shall consist of [eleven members appointed by different Florida officials] . . . .

2. The purpose of the council shall be to investigate the adverse effects of past diversions of water and potential effects of future diversions on indigenous wildlife and vegetation and to report to the Legislature, no later than March 1, 1988, with findings and recommendations proposing permanent solutions to eliminate such adverse effects. . . .

1989 Amendments to SWIM Act, Ch. 89-279, Fla. Laws, § 373.456, Fla. Stat. (1989) through (1993): *Approval of surface water improvement and management plans.—*

(1) After consideration of the comments and recommendations pursuant to § 373.455 and any other public comments, the governing board shall approve the surface water improvement and management plan. Within 15 days of approval, the district shall transmit the plan to the department.

(2) The department shall have the exclusive authority to review the plan to ensure consistency with

the state water policy and the State Comprehensive Plan. . . .

(5) If the department determines that the plan is not consistent, the following procedure shall apply:

(a) The secretary shall notify the governing board of the changes recommended by the department to make the plan consistent. The governing board shall review the recommended change at its next regularly scheduled meeting.

(b) Upon conclusion of its review, the governing board shall either incorporate the recommended changes into the plan or state in the plan the reasons for not adopting the changes. The governing board's action shall then be subject to review pursuant to § 373.114 as of the date of the governing board action approving the plan after completion of any necessary reviews.

APPENDIX I

The Marjory Stoneman Douglas Everglades Protection Act, Ch. 91-80, Fla. Laws, § 373.4592(3), Fla. Stat. (1993):

(3) ADOPTION OF SWIM PLAN.—

(a) The district shall adopt the Everglades Surface Water Improvement and Management Plan pursuant to the provisions of §§ 373.451-373.456. In addition to the criteria contained in § 373.453, the plan shall include:

1. Strategies for developing programs and projects designed to bring facilities into compliance with applicable water quality standards and restore the Everglades hydroperiod, including the identification and acquisition of lands for the purpose of water treatment or implementation of stormwater management systems, the development of funding mechanisms, and the development of a permitting system for discharges into waters managed by the district. . . .

(b) The plan shall not be reviewable as a rule under § 120.54 or § 120.56. However, the final agency action of the governing board of the district under § 373.456(4) or (5)(b) shall constitute an order of the district subject to review as provided in § 373.456(5)(b). The order shall also be subject to the provisions of § 120.57. If a provision of the plan is to be implemented through permits for which there is no existing rule requirement, the district shall engage in rulemaking procedures pursuant to chapter 120 for the adoption of the requirement. To the extent feasible, any review proceeding under chapter 373 or any administrative proceeding under § 120.57, with respect to a challenge to the plan, shall be expedited . . . .

APPENDIX J

Rules of Florida Department of Environmental Protection (formerly Department of Environmental Regulation), promulgated March 1, 1979, by Environmental Regulation Commission:

Rule 17-302.100 (formerly 17-3.011, subsequently 62-302.100) Findings, Declaration and Intent. . . .

(3) The present and future most beneficial uses of all waters of the State have been designated by the Department by means of the classification system set forth in this Chapter pursuant to Subsection 403.061(10), F. S. Water quality standards are established by the Department to protect these designated areas. . . .

(6) Public interest shall not be construed to mean only those activities conducted solely to provide facilities or benefits to the general public. Private activities conducted for private purposes may also be in the public interest.

(7) The Commission, recognizing the complexity of water quality management and the necessity to temper regulatory actions with the technological progress and the social economic well-being of people, urges, however, that there be no compromise where discharges of pollutants constitute a valid hazard to human health. . . .

(10)(a) The Department's rules that were adopted on March 1, 1979 regarding water quality standards are designed to protect the public health or welfare and to enhance the quality of waters of the State. They have been established taking into consideration the use and value of waters of the State for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes . . . .

(b) Under the approach taken in the formulation of the rules adopted in this proceeding:

1. The Department's rules that were adopted on March 1, 1979 regarding water quality standards are based upon the best scientific knowledge related to the protection of the various designated uses of water of the State; and

2. The mixing zone, zone of discharge, site specific alternative criteria, exemption and equitable allocation provisions are designed to provide an opportunity for the future consideration of factors relating to localized situations which could not adequately be addressed in this proceeding, including economic and social consequences, attainability, irretrievable conditions, natural background, and detectability.

(c) This is an even-handed and balanced approach to attainment of water quality objectives. The Commission has specifically recognized that the social, economic and environmental costs may, under certain circumstances, outweigh the social, economic and environmental benefits if the numerical criteria are enforced statewide. It is for that reason that the Commission has provided for mixing zones, zones of discharge, site specific alternative criteria, exemptions and other provisions in Chapters 17-3, 17-4, and 17-6, F.A.C. Furthermore, the continued availability of the moderating provisions is a vital factor providing a basis for the Commission's determination that water quality standards applicable to water classes in the rule are attainable taking into consideration environmental, technological, social, economic and institutional factors. . . .

(d) Without the moderating provisions described in (b)2. above, the Commission would not have adopted the revisions described in subsection (b)1.

above nor determined that they are attainable as generally applicable water quality standards.

Rule 17-[now 62-] 302.200. Definitions.

(12) "Man-induced conditions which cannot be controlled or abated" shall mean conditions that have been influenced by human activities, and

(a) would remain after removal of all point sources,

(b) would remain after imposition of best management practices for non-point sources, and

(c) cannot be restored or abated by physical alteration of the water body, or there is no reasonable relationship between the economic, social and environmental costs and the benefits of restoration or physical alteration. . . .

(26) "Water quality criteria" shall mean elements of State water quality standards, expressed as constitutent concentrations, levels, or narrative statements, representing a quality of water that supports the present and future most beneficial uses.

(27) "Water quality standards" shall mean standards composed of designated present and future most beneficial uses (classification of waters), the numerical and narrative criteria applied to the specific water uses or classification, the Florida antidegradation policy, and the moderating provisions contained in this Rule and in F.A.C. Rule 17-4, adopted pursuant to Chapter 403, F.S.

Rule 17-[now 62-] 302.300 Antidegradation Policy for Surface Water Quality.

(1) Section 403.021, Florida Statutes, declares that the public policy of the State is to conserve the waters of the State to protect, maintain, and improve

the quality thereof for public water supplies, for the propagation of wildlife, fish and other aquatic life, and for domestic, agricultural, industrial, recreational, and other beneficial uses. It also prohibits the discharge of wastes into Florida waters without treatment necessary to protect those beneficial uses of the waters.

(2) The Department shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources, and all cost-effective and reasonable best management practices for nonpoint source control . . .

(3) The Department finds that excessive nutrients (total nitrogen and total phosphorus) constitute one of the most severe water quality problems facing the State. It shall be the Department's policy to limit the introduction of man-induced nutrients into waters of the State. Particular consideration shall be given to the protection from further nutrient enrichment of waters which are presently high in nutrient concentrations or sensitive to further nutrient concentrations and sensitive to further nutrient loadings. Also, particular consideration shall be given to the protection from nutrient enrichment of those waters presently containing very low nutrient concentrations: less than 0.3 milligrams per liter total nitrogen or less than 0.04 milligrams per liter total phosphorus.

(4) Existing uses and the level of water quality necessary to protect the existing uses shall be fully maintained and protected. Such uses may be different or more extensive than the designated use.

(5) Pollution which causes or contributes to new violations of water quality standards or to continuation of existing violations is harmful to the waters of this State and shall not be allowed. Waters having water qualtiy below the criteria established for them

shall be protected and enhanced. However, the Department shall not strive to abate natural conditions . . .

Rule 17-[now 62-] 302.400 Classification of Surface Waters, Usage, Reclassification.

(1) All surface waters of the State have been classified according to designated uses as follows:

CLASS I	Potable Water Supplies
CLASS II	Shellfish Propagation or Harvesting
CLASS III	Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife
CLASS IV	Agricultural Water Supplies
CLASS V	Navagation, Utility and Industrial Use

. . .

(5) Criteria applicable to a classification are designed to maintain the minimum conditions necessary to assure the suitability of water for the designated use of the classification. . . .

(9) Reclassification of waters of the State which establishes more stringent criteria than presently established by this chapter shall be adopted, only upon additional affirmative finding by the Environmental Regulation Commission that the proposed designated use is attainable, upon consideration of environmental, technological, social, economic, and institutional factors.

Rule 17-[now 62-] 302.530. Surface Water Quality Criteria. (Formerly 17-560)

The following table contains both numeric and narrative surface water quality criteria to be applied except within zones of mixing. . . .

[Numeric and narrative criteria for 72 elements including:]

(48)(a) Nutrients

The discharge of nutrients shall continue to be limited as needed to prevent violations of other standards contained in this chapter. Man-induced nutrient enrichment (total nitrogen or total phosphorus) shall be considered degradation in relation to the provisions of Sections 17-302.300, 17-302.700, and 17-4.242, F.A.C.

(48)(b) Nutrients

In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna.

Rule 17-[now 62-] 302.600. Classified Waters.

(1) The surface waters of the State of Florida are classified as Class III—Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife, except for certain waters which are described in this section. A water body may be designated as an Outstanding Florida Water . . . in addition to being classified as Class I, Class II, or Class III. A water body may also have special standards applied to it. Outstanding Florida Waters . . . are listed in Rule 17.302.700, F.A.C. . . .

(3) Exceptions to Class III: [names specific Class I and Class II waters in each of 67 counties]

Rule 17-[now 62-] 302.700 Special Protection, Outstanding Florida Waters . . . .

(1) It shall be the Department policy to afford the highest protection to Outstanding Florida Waters . . . . No degradation of water quality, other than

that allowed in Rule 17-4.242(1) and (2), F.A.C., is to be permitted in Outstanding Florida Waters . . . , notwithstanding any Department rules that allow water quality lowering.

(2) A complete listing of Outstanding Florida Waters . . . is provided in subsections (9) and (10) . . . .

(7) The policy of this section shall be implemented through the permitting process pursuant to Section 17-4.242, F.A.C.

(8) For each Outstanding Florida water listed under Rule 17-302.700(9), the last day of the baseline year for defining the existing ambient water quality . . . is March 1, 1979, unless otherwise indicated. . . .

(9) [Lists some 200 Outstanding Florida Waters in 56 of the 67 Florida counties, including Everglades National Park (Monroe, Dade, Collier Counties) and Loxahatchee National Wildlife Refuge (Palm Beach County)]

Rule 17-[now 62-] 302.800 Site Specific Alternative Criteria.

(1) A water body, or portion thereof, may not meet a particular ambient water quality criterion specified for its classification, due to natural background conditions or man-induced conditions which cannot be controlled or abated. In such circumstances, and upon petition by an affected person or upon the initiation by the Department, the Secretary may establish a site specific alternative water quality criterion when an affirmative demonstration is made that an alternative criterion is more appropriate for a specified portion of waters of the state. Public notice and an opportunity for public hearing shall be provided prior to issuing any order establishing alternative criteria.

Rule 17-[now 62-] 4.242 Antidegradation Permitting Requirements; Outstanding Florida Waters . . .; Equitable Abatement.

(2) Standards Applying to Outstanding Florida Waters

(a) No Department permit or water quality certification shall be issued for any proposed activity or discharge within an Outstanding Florida Waters, or which significantly degrades, either alone or in combination with other stationary installations, any Outstanding Florida Waters . . . .

(b) The Department recognizes that it may be necessary to permit limited activities or discharges in Outstanding Florida Waters to allow for or enhance public use or to maintain facilities that existed prior to the effective date of the Outstanding Florida Water designation, or facilities permitted after adoption of the Outstanding Florida Water designation. However, such activities or discharges will only be permitted if . . .

2. Management practices and suitable technology approved by the Department are implemented for all stationary installations including those created for drainage, flood control, or by dredging or filling; and

3. There is no alternative to the proposed activity, including the alternative of not undertaking any change, except at an unreasonably higher cost.

Rule 17-[now 62-] 4.244 Mixing Zones; Surface Waters.

(1) Zones of mixing for non-thermal components of discharges.

(a) The Department may allow the water quality adjacent to a point of discharge to be degraded to the extent that only the minimum conditions de-

scribed in subsection 17-3.051(1), Florida Administrative Code, apply within a limited, defined region known as the mixing zone. Under the circumstances defined elsewhere in this section, a mixing zone may be allowed to provide an opportunity for mixing and thus to reduce the costs of treatment. However, no mixing zone or combination of mixing zones shall be allowed to significantly impair any of the designated uses of the receiving body of water. . . .

APPENDIX K

Florida Environmental Protection Act of 1971, Ch. 71-343, Fla. Laws, § 403.412 (1971) through (1993):

(2)(a) The Department of Legal Affairs, any political subdivision or municipality of the state, or a citizen of the state may maintain an action for injunctive relief against:

1. Any governmental agency or authority charged by law with the duty of enforcing laws, rules, and regulations for the protection of the air, water, and other natural resources of the state to compel such governmental authority to enforce such laws, rules, and regulations;

2. Any person, natural or corporate, or governmental agency or authority to enjoin such persons, agencies, or authorities from violating any laws, rules, or regulations for the protection of the air, water, and other natural resources of the state. . . .

(c) As a condition precedent to the institution of an action pursuant to paragraph (a), the complaining party shall first file with the governmental agencies or authorities charged by law with the duty of regulating or prohibiting the act or conduct complained of a verified complaint setting forth the facts upon which the complaint is based and the manner in which the complaining party is affected. Upon receipt of a complaint, the governmental agency or authority shall forthwith transmit, by registered or certified mail, a copy of such complaint to those parties charged with violating the laws, rules, and regulations for the protection of the air, water, and other natural resources of the state. The agency receiving such complaint shall have 30 days after the receipt thereof within which to take appropriate action. If such action is not taken within the time prescribed, the complaining party may institute the judicial proceedings authorized in paragraph (a).

APPENDIX L

COOPERATIVE AND LICENSE AGREEMENT BETWEEN THE CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT AND THE UNITED STATES OF AMERICA

THIS AGREEMENT, Made and entered into between the Central and Southern Florida Flood Control District, (hereinafter referred to as the District), pursuant to Chapters 25209 and 25214, Laws of Florida, Acts of 1949, and the United States Department of the Interior, acting by and through the Fish and Wildlife Service (hereinafter referred to as the Service), pursuant to the Act of August 14, 1946 (60 Stat. 1080).

WITNESSETH:

The parties hereto, for themselves and their respective successors and assigns, do hereby mutually covenant and agree as follows:

1. The District hereby grants a license upon, and makes available to the Service for the purposes and subject to the terms and conditions hereinafter set forth, all those portions of the real property, or interests therein, acquired or to be acquired by the District in connection with the area designated as Conservation Area Number One, a part of the Central and Southern Florida Flood Control District, in Palm Beach County, Florida, together with all improvements which are located thereon (hereinafter referred to as the property). Those portions of the property already acquired by the District in connection with Conservation Area Number One, which are to made subject to the terms and conditions of this license and agreement, are described in "Exhibit A", and those portions of the property to be acquired by the District in connection with Conservation Area Number One, which are to be made subject to the terms and conditions of this

license and agreement, are described in "Exhibit B", such exhibits being attached hereto and expressly made a part hereof. The property described in "Exhibit B", or any part of such property, shall become subject to all of the terms and conditions of this license and agreement, or any renewal thereof, when any interest or title thereto has vested in the District, but not before such time. The District shall notify the Service in writing when title to any of the property described in "Exhibit B" has vested in the District.

2. The Service shall use said property as a Wildlife Management Area, to promote the conservation of wildlife, fish, and game, and for other purposes embodying the principles and objectives of planned multiple land use.

These objectives are to be attained through the following management practices covering the wildlife and recreational phases of land use represented by this area.

(a) Wildlife:

Adequate provision shall be made to maintain the the wildlife resources in a productive condition through:

(1) Maintaining as closed areas for breeding and feeding grounds so much of the unit as will ensure maximum stocks of game, fish and furbearers and thus permit the harvesting of surpluses.

(2) Maintenance and development of wildlife environments and habitat where such use is not inconsistent with the use of land for flood control and water retention purposes.

(3) Planting of cultivated crops and natural wildlife foods to increase the carrying capacity of the area for wildlife.

(4) Construction, operation, and maintenance of such canals, ditches, and subimpoundments

as may be deemed necessary by the Service for the purpose of creating conditions suitable for wildlife species using the area. Provided, that such construction, operation and maintenance shall be consistent with the objectives of flood control and other allied purposes in the area.

(5) Opening by regulation of the Service of portions of the area to controlled public hunting, fishing and trapping, whenever the Service determines such procedure to be necessary for the harvesting of surplus stocks of game, fish and furbears. Open season shall be limited to the period necessary only for harvesting the surplus stock and shall conform to State law and regulation.

(b) Recreation:

Recreational facilities existing, or to be developed, shall be operated, maintained, and administered according to the following principles and objectives:

(1) The recreational facilities shall be available for the use and benefit of the general public.

(2) Fees charged for the use of the facilities shall be non-discriminatory and consistent with the public non-profit character of the area. Such controlled public hunting and fishing as is allowed by the Service shall be made available to the general public without charge.

(3) All recreational facilities which may be developed in the future shall be located where their use will not interfere with the use of the land for flood control and water retention purposes.

(c) Monies obtained from the sale or granting of permits by the Service for trapping and other eco-

nomic uses are to be retained by the Service for deposit and distribution under Section 401 of the Act of June 15, 1935 (49 Stat. 383-16 U.S.C. 715s).

3. The use of said property by the Service shall be subject to the requirements and uses by the Corps of Engineers and the District for flood control and other allied purposes and the Service shall not be obligated in any manner for costs, charges, expenses, or other obligations as are properly chargeable to the maintenance and development of the flood control activities. The use of said property shall be further subject to all valid easements, rights-of-way, licenses, and outstanding interests in, upon, across, or through said property.

4. The District reserves all rights not vested in private persons, corporations or other public agencies, to the oil, gas, coal and other mineral ores whatsoever, upon, in or under said property, together with the using mineral rights, powers and privileges, including the right of access to the use of such parts of the surface of the premises as may be necessary for mining and saving said minerals. The Service, however, shall have the right to use stone, marl, sand or peat and similar substances from said property, provided such materials are used for construction purposes upon or in connection with said property. The license herein granted to the Service is subject to the rights of the District and to the rights heretofore vested in private persons, and public agencies, as the same appear of record, to mine, explore for and develop, any mineral in, under or upon said lands, including oil and gas, and including the right of ingress and egress on, upon or across such lands as may be necessary for the purposes stated.

In the event the District determines that the exercise of the said mining rights are necessary and not inconsistent with the purposes referred to in Section 2 above, it agrees that the exploration by the District, its successors or assigns, the drilling for, development of, and the trans-

portation or removal of mineral resources, including oil, and the control of abandoned wells or wells taken out of production, shall be conducted by the most approved methods. Paramount consideration shall be given to the prevention both of pollution an contamination by oil or field brine and of other oil field contamination or damage of the lands for wildlife refuge purposes. Human occupancy and housing facilities therefor and structures erected for drilling, development, transportation or removal of mineral resources, will be held to a minimum. Any inevitable waste in proximity to the sources will be so confined as to prevent escape that might otherwise occur as a result of rains or high water.

Suitable provision will be made for the removal of oil field brine from the area, by pipe line or any other approved method, so as not to contaminate the lands or the water in the ponds or lakes now created or that may hereafter be created.

5. The term of this license and agreement shall be fifty (50) years beginning on the 1st day of January, 1951, and ending on the 1st day of January, 2001, and shall automatically be renewed for three (3) successive terms of fifteen (15) years unless written notice to the contrary is given by either party to the other not less than ninety (90) days prior to the termination of this instrument, or any renewal thereof, and each renewal shall be subject to all of the terms and conditions of this license and agreement.

6. The Service shall not use or permit to be used, and shall take such measures as may be necessary to prevent the use or occupancy of said property, or any portion thereof, for any purpose which is inconsistent or incompatible with the purposes set forth in Section 2 above; nor shall the Service, except with the written consent of the District, assign any of its rights or obligations under this license and agreement, or any renewal

thereof, or grant or create any rights in favor of third persons with reference to said property. This provision shall not be construed to apply to such employees of the Service as are engaged in the administration of said property during the period they are actually so engaged.

The Service shall not, except with the written consent of the District, authorize or permit third persons including employees of the Service engaged in the administration of the area, to erect structures or dwellings on the property, whether such authorization or permission creates any rights in such third persons or not. This provision shall not be construed as requiring a permit from the Service to mine, explore or develop the minerals, including oil and gas, as provided for in Section 4.

7. The Service shall assume and defray all costs, charges, expenses, and other obligations except as otherwise provided for under Section 3, incident to the use of said property for the purposes provided herein, shall maintain said property in good condition and repair, making all repairs and replacements necessary caused by deterioration, damage, use, negligence, or any other cause whatsoever, and shall not remove any improvements except in accordance with Section 12 below, or alter any major improvements without the written consent of the District.

8. The obligations of the Service under this agreement are conditioned upon the passage of an appropriation by Congress from which expenditures thereunder may be made and shall not obligate the Service upon the failure of Congress to so appropriate.

9. The District agrees to hold and save the Service free from damages due to the right to operate under the terms of this license and agreement. The Service agrees to hold and save the District free from damages due to operations under the terms of this license and agreement.

10. The Service shall submit, not later than one year after the effective date of this license and agreement, a general plan of operation and development, setting forth the measures to be taken by the Service to effectuate the purposes of this license and agreement. The Service shall also permit at all times, any duly authorized representative or representatives of the District to enter upon and inspect said property.

11. Upon the expiration or termination of this license and agreement, or any renewal thereof, the Service shall quietly and peaceably vacate said property and surrender possession thereof, and the District may immediately, or at any time thereafter, re-enter and take possession of the property and remove all persons therefrom.

12. Upon the expiration or termination of this license and agreement, or any renewal thereof, the Service shall have the right to remove only those improvements which have been erected exclusively with funds specifically or generally appropriated by the Congress of the United States. Provided, however, that no such right for removal shall extend to, or include, any works constructed as part of the flood control program.

13. The invalidity of any provision of this instrument, or of any part thereof, shall not affect the validity of the remaining provisions or the rights and obligations of the parties thereunder.

14. The failure of the District to insist upon the strict performance of any of the terms, covenants, agreements and conditions herein contained shall not constitute a waiver or relinquishment of the right of the District to enforce thereafter such terms, covenants, agreements, or conditions, but the same shall continue in full force and effect.

15. Any notice, consent, or other actions to be given or done by the District under this license and agreement,

or any renewal thereof, shall be valid only if in writing and executed by the Chairman of the Board of Governors of the Central and Southern Florida Flood Control District, or his duly authorized representative, or in the case of a successor to the rights of the Central and Southern Florida Flood Control District, by the chief administrative officer of such successor, or his duly authorized representative. All notices to be given by the District under this license and agreement, or any renewal thereof, shall be delivered or forwarded by mail to the Director, Fish and Wildlife Service, United States Department of the Interior, Washington, D. C.

Any notice, consent, or other action to be given by the Service under this license and agreement, or any renewal thereof, shall be valid only if in writing and executed or performed by the Secretary of the Interior or his duly authorized representative, or in the case of a successor to the rights of the Department of the Interior, by the chief administrative officer of such successor or his duly authorized representative. All notices to be given by the Service under this license and agreement, or any renewal thereof, shall be delivered or forwarded by mail, addressed to the Central and Southern Florida Flood Control District, West Palm Beach, Florida, or its successor hereunder.

16. No member of or delegate to Congress or Resident Commissioner shall be admitted to any share or part of this license and agreement, or any renewal thereof, or to any benefit to arise therefrom.

17. This license and agreement shall become effective when duly executed by all parties indicated below, but possession of the said property shall not be granted until January 1, 1951, the beginning of the 50-year primary term provided for in paragraph 5 hereof.

18. It is understood and agreed that in the operation and management of the Conservation area lands for the

primary purpose of flood control and other allied purposes, the lands and waters will be managed and operated in the manner most consistent with Section 2 hereof, so far as it is not inconsistent with the said primary purpose.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names as of the dates indicated.

CENTRAL AND SOUTHERN FLORIDA
FLOOD CONTROL DISTRICT

Date Nov. 20, 1950

BY /s/ Jon S. Earman
Chairman of the Board
of Governors

THE UNITED STATES OF AMERICA

/s/
Secretary of the Interior

Date Jun. 8, 1951

BY /s/ Allen M. Day
Director, Fish and
Wildlife Service

EXCERPT FROM THE MINUTES OF THE MEETING ON NOVEMBER 10, 1950, OF THE GOVERNING BOARD OF CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT.

The lease and cooperative agreement for the use of Conservation Area Number One by the U. S. Fish and Wildlife Service as a wildlife and migratory bird refuge was read and considered in relation to the multiple purposes of the flood control plan. Upon recommendation by the Engineering and Legal Departments and upon motion of Commissioner Rogers, seconded by Commissioner Driggers and unanimously carried, the lease and cooperaative agreement as read, a copy of which is annexed to these Minutes, was approved and the Chairman was authorized and directed to execute the same for and on behalf of and in the name of the District.

(Insert Cooperative Agreement)

I, W. Turner Wallis, Secretary of Central and Southern Florida Flood Control District, do hereby certify that the foregoing is a true and correct copy of an excerpt from the Minutes of a meeting of the Governing Board of Central and Southern Florida Flood Control District, held on November 10, 1950.

In witness whereof, I have hereunto set my hand and affxed the seal of the District this 22nd day of November, 1950.

/s/ W. Turner Wallis
W. TURNER WALLIS
Secretary

The first amendment to the Cooperative and License Agreement, dated July 8, 1953, establishing the southern and southwestern boundaries of Conservation Area No. 1 to be the certerline of Levee L-39, is omitted.

The second amendment dated December 15, 1959, modifying the northern and southern boundaries of Conservation Area No. 1 is omitted.

The third amendment signed July 18 and 23, 1962, reestablishing the southwest boundary of Conservation Area No. 1 is omitted.

APPENDIX M

MEMORANDUM OF AGREEMENT AMONG THE ARMY CORPS OF ENGINEERS THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AND THE NATIONAL PARK SERVICE FOR THE PURPOSE OF PROTECTING THE QUALITY OF WATER ENTERING EVERGLADES NATIONAL PARK

Since the Congress, in connection with the Everglades National Park, has directed the Corps and the National Park Service "to reach an early agreement on measures to assure that the water delivered to the park is of sufficient purity to prevent ecological damage or deterioration of the park's environment." (River Basin Monetary Authorizations and Miscellaneous Civil Works Amendments, Senate Report No. 91-895, p. 24); and

The quality of existing water deliveries to the park does not depart significantly from that of waters which have not been altered by the works of man; and

The Corps, the National Park Service (NPS), and the Water Management District (MWD) are concerned that surface waters delivered to the park are not degraded;

THEREFORE, the Corps, NPS, and WMD (parties) mutually agree to the following:

1. Water Quality criteria for 27 parameters as enumerated in Appendix A shall apply only to surface waters delivered to the park. Federal, State, and local water quality criteria which are more stringent than those appended criteria shall continue to apply.

2. The concentrations of pesticides/herbicides in surface waters delivered to the Park are to be 0.0. Actual concentrations are to be below the limits of detection. A listing of pesticides/herbicides is shown in Appendix B.

3. The Corps shall collect and analyze for specified parameters (see appendix A) and pesticide/herbicide residues (see appendix B) in surface water from delivery water locations (see appendix C). Sediment from the inflow stations will also be tested for trace metals and pesticide/herbicides. Sampling frequencies are described in appendix C.

4. The WMD shall collect and analyze for specified parameters (see appendix A) and pesticide/herbicide residues (see appendix B) in surface water from watershed locations (see appendix D). Sampling frequencies are described in appendix D.

5. The WMD shall also conduct diurnal studies for dissolved oxygen, specific conductance, pH, and water temperature at the inflow stations as described in appendix C.

6. All sample collection data and analyses shall be reported monthly to NPS, Corps, and WMD.

7. The Corps, NPS, and WMD shall meet at such times as may be necessary at the request of any party, but not less frequently than once a year to review results of this agreement.

8. Should water quality criteria not be met and a clear and present danger to water quality has been determined to exist by the parties, appropriate actions or such legal process as may be necessary to restore or protect the quality of water entering the Park shall be taken by the Corps, NPS, and WMD.

9. This agreement may be revised upon mutual consent of all parties. A 90-day review period will be allowed for review of proposed changes to this agreement.

10. The Corps, NPS, and WMD recognize that the data base for the appended standards needs periodic review. Therefore, the standards will be reviewed for

adequacy and necessary revisions in 1984 and periodically thereafter.

IN WITNESS THEREOF, THE PARTIES HERETO HAVE SIGNED THIS AGREEMENT ON THE DATES INDICATED.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, BY ITS GOVERNING BOARD

(CORPORATE SEAL)

ATTEST:

BY /s/ [Illegible]
Chairman

/s/ John R. Wodraska
Secretary

DATE February 10, 1984

/s/ [Illegible] 2/9/84

THE UNITED STATES OF AMERICA
CORPS OF ENGINEERS

Executed in the
Presence of:

BY /s/ [Illegible]
Colonel, Corps of Engineers

District Engineer
Jacksonville District

As to Corps
of Engineers

Date Nov. 21, 1983

THE NATIONAL PARK SERVICE

Executed in the
Presence of:

BY /s/ [Illegible]
Superintendent
Everglades National Park

/s/ Gary Hendrix

As to National
Park Service

Date Feb. 8, 1994

Parameter	Upper Limit *
A. Field Parameters	
1. Dissolved Oxygen (mg/1)	4.5
2. Spec Conductance (umho/cm² @ 25°C)	647
3. pH (units)	7.6-8.0
4. Temperature (°C)	not applicable
B. Physical Parameters	
1. Color (PCU)	124
2. Turbidity (NTU)	11
C. Nutrients	
1. Ortho Phosphorus (mg/1 as P)	0.02
2. Total Phosphorus (mg/1 as P)	0.24
3. NO_2 (mg/1 as N)	0.04
4. NO_3 (mg/1 as N)	0.7
5. NH_4 (mg/1 as N)	0.24
6. Organic N (mg/1 as N)	2.1
D. Major Ions	
1. Calcium (mg/1)	86
2. Magnesium (mg/1)	25
3. Sodium (mg/1)	93
4. Chloride (mg/1)	143
5. Iron (mg/1)	270
6. Alkalinity (mg/1 as $CaCO_3$)	269
E. Trace Metals	
1. Mercury (ug/1)	0.5
2. Cadmium (ug/1)	10
3. Copper (ug/1)	8
4. Lead ug/1)	13
5. Zinc (ug/1)	72
6. Arsenic (ug/1)	20

* Annual mean not to exceed this value. For dissolved oxygen, annual mean not to be less than this value.

F. Biological Parameters

1. BOD (mg/1)	3
2. Fecal Coliforms	To be determined
3. Total Coliforms	To be determined

RATIONALE FOR UPPER LIMITS

Water quality data from inflow stations to the Park (S-12C and L-67A) for 1970-1978 were analyzed. From this data, upper limits for each parameter were computed based on control chart theory which uses the mean standard deviation, annual sampling frequency and control line factor.** These upper limits are to be used as criteria against which future water quality data could be compared.

** Bowker, A.H., G.J. Liberman 1972. Engineering Statistics, 2d ed., Prentice-Hall, Inc., Englewood, New Jersey.

PESTICIDES/HERBICIDES

—Aldrin
—Lindane
—Chlordane
—DDD
—DDE
—DDT
—Dieldrin
—Endrin
—Ethion
—Toxaphene
—Heptachlor
—Heptachlor E
—PCB
—Malathion
—Parathion
—Diazinon
—Methyl Parathion
—2, 4, 5-T
—Silvex
—Trithion
—Methyl Trithion

Monitoring Locations

1. L-67 at S-12D
2. S-332
3. S-18C
4. Tamiami Trail between 40 Mile Bend and jetport

Field Parameters	Monthly
Physical Parameters	Monthly
Nutrients	Monthly
Major Ions	Monthly
Trace Metals	Monthly-water semiannually sediments

F. Biological Parameters

Pesticides/Herbicides	Quarterly-water semiannually sediments

(Map Omitted in Printing)

Monitoring Locations

1. S-178
2. S-177
3. S-176
4. L-28 gap
5. L-3 at Deer Fence Canal
6. S-140
7. S-8
8. S-7
9. S-11A, S-11B, and S-11C
10. S-9

(Map Omitted in Printing)

Field Parameters	Biweekly-bimonthly depending on flow
Physical Parameter	Biweekly-bimonthly depending on flow
Nutrients	Biweekly-bimonthly depending on flow
Major Ions	Biweekly-bimonthly depending on flow
Trace Metals	As needed based upon results of inflow monitoring (minimum semiannual survey)
Biological Parameters	As needed based upon results of inflow monitoring
Pesticides/Herbicides	As needed based upon results of inflow monitoring (minimum semiannual survey)